The Builder.

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The Great Fire at Antwerp and its Effects.

THE conflagration by which the greater part of the Royal bonded warehouses at Antwerp was destroyed on the 5th inst. ranks amongst the remarkable fires of modern times, as much from the rapidity which marked its progress as from the completeness of the destruction in which it resulted.

The Royal bonded warehouses consisted, as may be seen from the plan which we give, of an extensive group of buildings in three main blocks, facing the Quai de l'Entrepôt on the west, and partly connected at the rear, towards the Avenue du Commerce, by buildings of less height on the east. The main blocks consisted of six stories above the basement, and the central block had a large internal courtyard. The connecting buildings on the east side were partly one story and partly four stories in height. In the courtyards, and particularly to the south of the main blocks, were a number of detached one-story buildings, indicated on the plan by crossed diagonal lines. The central and southern main blocks, as well as the connecting buildings on the east side and all the one-story buildings except the group at the extreme south-west corner, have been completely destroyed.

The fire started on the 5th inst. at 2.30 p.m.; at 2.40 p.m. the fire brigade were called out; at 4.30 p.m. the buildings were all alight; at 5 p.m. the first roof fell, and by 6 p.m. the whole of the roofs and floors had fallen in and the fire was under control for the first time. The efforts of the fire brigade to keep under the conflagration were practically impotent until the roofs and floors had fallen in and the fire to this extent had burnt itself out. Complete extinction of the fire was not, of course, at that time possible, and, indeed, has not up to the time of writing this been effected, but the fire was from that time prevented from spreading.

The whole of the buildings were not occupied by bonded goods alone, but some of the upper floors were let out to private tenants, and it was in one of these tenancies that the fire started, on the top floor of the central block over the point marked A on plan. It is believed that the outbreak was due to the spontaneous combustion of some old sacks which were tightly tied up in bundles and had become damp. The division or party walls did not extend higher than the plate level of the roofs of the main blocks, and the fire quickly travelled through the roof and top floor of the central block, then burnt downwards, and, with a strong northerly breeze blowing from the sea with a rising tide, leaped across to the one-story building on the east side, then to the four-story building and the southern block.

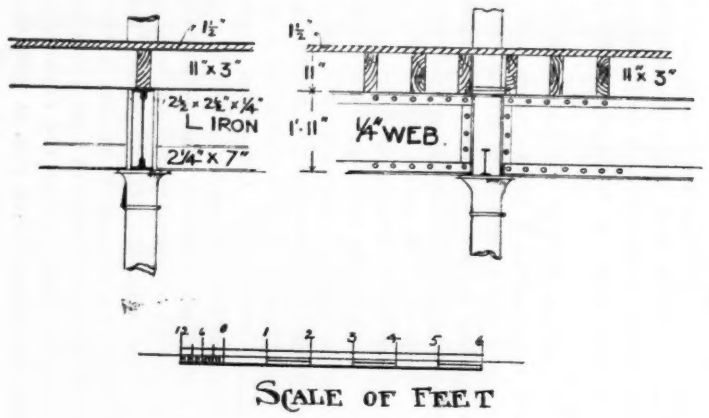
The warehouses contained a miscellaneous stock of goods—coffee, sugar, wool, tobacco, &c., with wine and spirits in the basement; but the stocks were below the average, the amount of sugar, for example, being only one-fortieth of that usually stored. One factor in the rapidity of the fire could be readily comprehended from an inspection of the northern block which has not been consumed, and that is the remarkably dirty condition in which the warehouses were kept, judging from this building, to which the others are said to have been similar. The floors were coated with sugar; dirt and dust, fragments of straw and other combustible matter were widely spread, so that ample food for a rapidly-extending conflagration was present.

The construction of the buildings also was eminently suited to a quick communication of the flames. The division or party walls, as we have already noticed, did not divide the roofs and had many openings in them, some closed by open lattice-work wooden doors, others by single iron doors of thin plate, about ¼ in. thick and badly fitting. The floors were constructed of 1½-in. deal boarding on 11-in. by 3-in. fir joists, 10 in. apart, carried on wrought-iron plate girders. These girders were of very light construction, consisting merely of ¼-in. web, 1 ft. 11½ in. deep, with, for flanges, two angle irons, 2½ in. by 2½ in., of ¼-in. metal. The girders were supported by cast-iron columns, 10½ in. outside diameter and ½-in. metal (on upper floors). As stays from column to column transversely were rolled iron joists 7¼ in. by 3¼ in. of ¼-in. metal. This construction is shown in detail on our plan. The weight of the floor was not carried on the walls, although the ends of joists and of iron girders were built in, but upon a row of the cast-iron columns with girders supported upon them, placed close to the walls, as shown on the plan. The various stories had free communication by open skeleton staircases of wood, and also by lifts for goods, so that the whole of the main blocks destroyed and the adjacent buildings on the east side were, in fire insurance parlance, "in one risk."

The walls were well built of brick, but, measured by the standard of our own Building Acts, too thin for their height and length. The lower parts of the façades to the sill of the first floor windows were faced partly with a cream-coloured limestone and partly with what is locally called "blue granite."

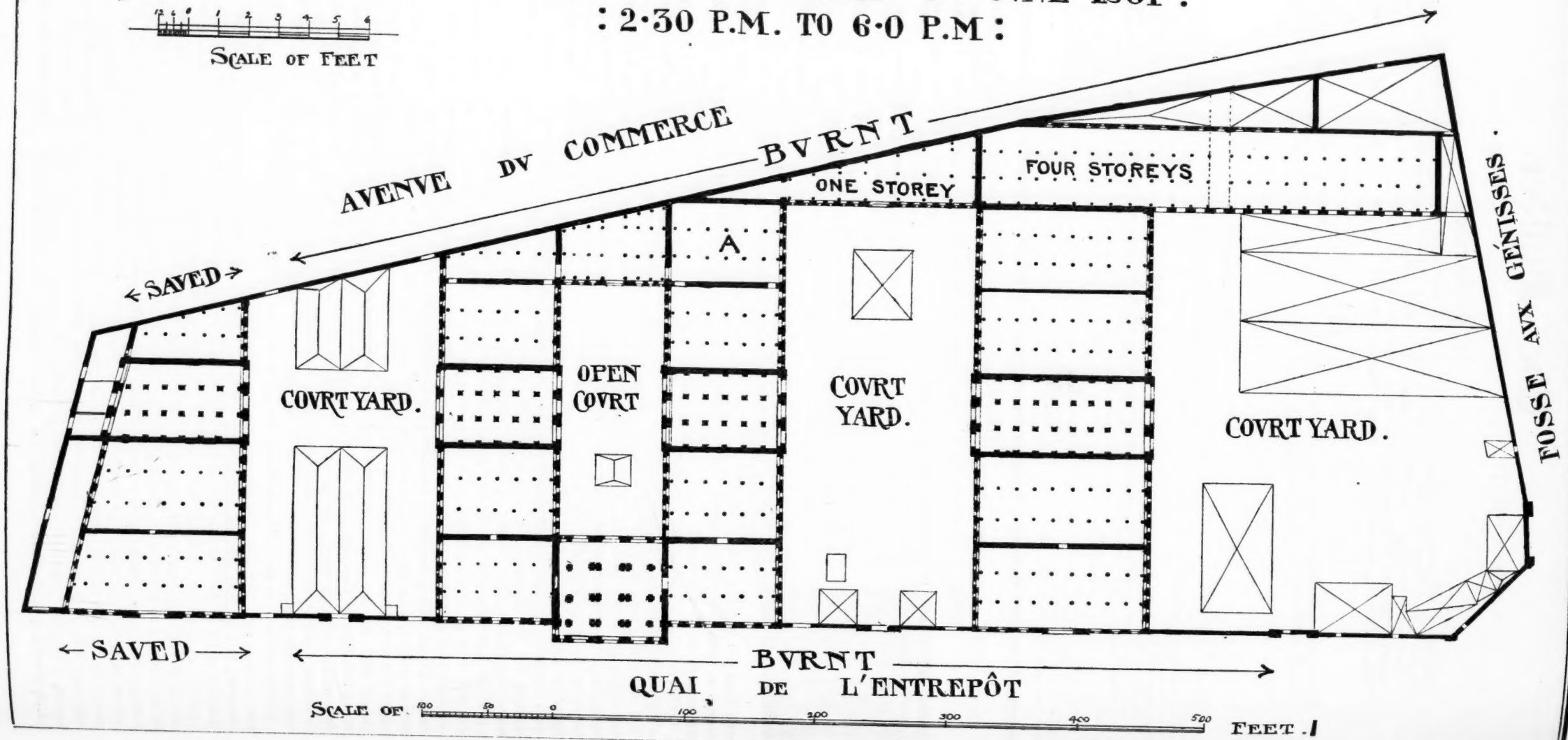
The avenues through the centre of each block were vaulted in brick, and on some of the upper floors were brick arches carried by cast-iron girders, but beyond this there was no pretence of fire-resisting construction or sub-division of areas except for the futile iron doors already mentioned. The date at which the buildings were erected, A.D. 1831, was, of course, anterior to the general idea of non-combustible construction, to say nothing of so-called fireproof or fire-resisting work. Even the window frames and sashes were of wood.

Everything, therefore, was prepared for the rapid development of a fierce heat, and the heat attained was in some cases sufficient to fuse parts of the cast-iron columns (cast iron melts at from 2,000 deg. to 2,800 deg. Fahr.), whilst the radiated heat from the central block was, in spite of the



: ROYAL BONDED WAREHOVSES : : ANTWERP :

: DESTROYED BY FIRE 5TH JVNE 1901 : : 2·30 P.M. TO 6·0 P.M :



strong northerly breeze, sufficient to fire the northernmost block, although to windward. The efforts of the fire brigade, however, prevented this building from serious injury. Isolated one-story buildings to leeward, although a considerable distance away, as may be seen from the plan, were completely burnt.

The facilities for coping with so great a conflagration were unfortunately insufficient. The whole fire brigade of Antwerp, 100 men, were on duty, and after about 4 p.m. the Malines fire brigade were summoned also, and sent eighty men and engines, whilst the Brussels fire brigade sent a detachment at about 7 p.m., who, however, soon returned, the fire being then under control. Town hydrants were situated all round the building and in the courtyards, as well as a system of six hydrants from the hydraulic mains supplying the motive power for the lifts. The pressure of water was for some time insufficient to enable the brigade to reach higher than the third floor, and to add to the list of misfortunes, of the two powerful steam floats belonging to the town, one was under repair, whilst the other was outside the lock gates and could not reach the fire as the tide was low.

The effects of the fire on the materials used in construction were in accordance with previous experience. All woodwork, even to lintels and frames, built into brickwork was destroyed, except in the case of massive beams of oak, and in some instances fir, though there were examples of even heavy timbers 12 in. by 12 in. completely burnt through. Wrought-iron girders were bent and twisted into corkscrew form, and light iron trusses of one-story buildings suffered likewise. Cast-iron columns and girders were snapped cleanly across, and in some cases, as previously mentioned, partly fused, apparently after fracture. Stonework was deeply spalled and shivered. Brickwork was uninjured, except where walls were pushed out or pulled over by expansion or twisting of ironwork, and this was the fate of many of the lofty walls. Brick vaulting also stood well, except where it bodily collapsed by the failure of its supports or abutments. Glass was shivered or melted, although note should be made of an exception in one low-story building which, built of brick walls with the upper part lighted by side windows some 4 ft. high, glazed with wired glass in wood frames and covered with corrugated iron sheeting on light iron trusses with fir purlins, was wholly burnt out, except one window, of which sufficient of the woodwork remained to support the glass, whilst the remainder, although scintered, as is the one still left, appear to have fallen out bodily after the combustion of the wood frames.

It is interesting in connexion with the rapidity and intensity of the Antwerp conflagration to compare the most recently adopted form of construction exemplified in the bonded warehouses at Hamburg, at present being constructed. Here all beams and stanchions or story posts are of massive oak timbers, bolted together (and this, we think, is a weak point) with heavy wrought-iron bolts. The buildings are in several stories, five or six above the basement, and two of the floors have light steel joists, embedded in and protected, both above and below, by concrete, so that the extent of a conflagration is hoped to be limited. The floor areas are of moderate size, and staircases are constructed of iron joists wholly encased in concrete, on which the steps are formed.

The openings to the stairs are closed by single doors formed of two plates of sheet-iron, with about 2 in. or 2½ in. of non-conducting material between. To minimise damage by water, which is rightly regarded everywhere in Germany as being only one degree less to be dreaded than that by fire, the floors are laid with a fall to the external walls, and provided with scuppers.

The success of the Hamburg method has yet to be proved by actual experience, but the principle appears sound, to minimise the extent of a conflagration and to resist the fire by slow-burning construction rather than by the use of non-combustible material, recognising that, as all experience shows, unprotected ironwork is the least trustworthy of all fire-resisting substances.

Had such a treatment of the building existed at Antwerp, it is hardly probable that the fire brigade would have been so hopelessly handicapped as to be unable to obtain control of the fire until assisted by the destruction of the buildings.

The loss in money value is, of course, tremendous, the buildings alone being insured for 20,000,000 fr., whilst the total loss is estimated, perhaps roughly, at some five or six million pounds sterling. In the loss several of our English companies have been severely hit, amongst them especially the Norwich Union, the Royal, the Phœnix, and the North British and Mercantile.

NOTES.

"Education in Building."

WHILE we fully sympathise with the healthy tone of Professor Lethaby's lecture at the Institute of Architects, it appears to us to be pervaded by two fallacies. In the first place, he seems to take no account of anything in the past except mediæval architecture; and because he does not find the name of architect there, he wishes us to conclude that there was no person whose function was the same as that of architect. The argument apparently runs thus: Mediæval cathedrals were built by workmen. Mediæval cathedrals are the finest buildings. *Ergo:* the finest buildings can be best produced by workmen. Apparently Greek, Roman, and Renaissance architecture go for nothing; but it is certain that on Greek and Roman buildings architects were employed, and even the name was there as well as the function. Some of the Renaissance mansions in England seem to have built themselves as the result of a desultory correspondence between the owner and the master-builder or foreman; but in Italy the important buildings of the Renaissance were the work of individual architects, and we have their name in most cases. And in English mediæval buildings there is, in many cases, ample internal evidence of the guiding mind of an architect. Professor Beresford Pite, in the discussion, coupled in one sentence Salisbury and Peterborough together; but we should regard them as essentially distinct in regard to the architectural element. The west front of Salisbury, with its clumsy mixing up of detail and its want of a prevailing unity of conception, may well have been the work of Professor Lethaby's masons: Peterborough front is the conception of an architect. Secondly, Professor Lethaby seems to ignore the altered requirements of modern architecture. A Norman castle with its naïve and inconvenient arrangements for living, might have been put together by a troop of masons; but let him give over a modern mansion to the workmen to build as they like, and see what the owner will say to the result!

The Liverpool Cathedral Site.

WE print on another page an admirable Report of a special meeting of the Liverpool Architectural Society, convened on the 13th inst. to consider the question of the site for the proposed Liverpool Cathedral. We are glad to find that the Society have come to the same conclusion which we have more than once expressed, in favour of the Monument-place site as decisively the best from an architectural point of view. We hope their Report will receive the consideration it merits. It appears that the Bishop has formally approved of the St. James's Mount site, but we presume nothing that is irrevocable can have been done yet, and we hope the matter will be reconsidered. If the St. James's Mount site is actually taken, we are of opinion that a serious mistake will have been made, as will probably be discovered when it is too late to rectify it.

Lien for Deposits on Building Estates.

A POINT of some interest to those concerned with building estates was recently decided in the case of Whitbread & Co. *v.* Watt. The plaintiffs contracted to buy what is called a public-house plot from a building speculator when the latter had built three hundred houses on the estate, and they deposited a sum on the signing of the agreement. Subsequent to this event the vendors mortgaged the estate, and the mortgagee under his power of sale sold it to a third person. But by the end of the time within which the three hundred houses were to be erected they were still unbuilt. In accordance with their contract the plaintiffs rescinded the agreement, and claimed to have a lien on the estate in respect of their deposit. The contention was upheld by the judgment, the defence that the deposit could only be recovered as a personal debt being overruled. With the legal discussion which preceded the judgment we are not concerned, but the practical point is important, since it is clear from the decision that a person might buy an estate burdened with an obligation which might, in some cases, make a considerable difference as to the ultimate profit to be obtained from the transaction. The decision is the more important when it is borne in mind how frequently building estates are mortgaged and how often the original plan is not carried out.

Portsmouth *v.* Seward.

THE result of the appeal in Portsmouth *v.* Seward, reported in our legal column in this issue, is important for architects to note, in regard to questions arising out of the transference of a professional business or connexion. Mr. Seward, the well-known architect, of Cardiff, had a branch office at Swansea, where Mr. Portsmouth, the plaintiff in the case, represented him; but he eventually made over the Swansea connexion to the plaintiff (we are not informed for what, if any, pecuniary consideration), undertaking not to keep an office

or practice as an architect there, but reserving the right to act in any cases in which he might be called upon. Mr. Seward competed for and gained the Swansea Harbour Offices, for which the plaintiff was an unsuccessful competitor, whereupon the latter obtained from Mr. Justice Kekewich an injunction to restrain Mr. Seward from carrying out the building. Seeing that the plaintiff obtained no premium in the competition, and would not in any case have been employed to carry out the building, this was not either a very logical or a very generous way of acting; and we are surprised that a judge so shrewd and so generally well acquainted with architectural matters should have granted an injunction at all. At all events, the Appeal Court reversed the decision without calling on the appellant's counsel for a reply: and rightly. Mr. Seward undertook not to practise as an architect in Swansea; *i.e.*, not to have an office there; but he was within his rights in competing. A London architect who designs and superintends a building, say in Birmingham, is not therefore "practising in Birmingham." If it is desired, in such a case, that the vendor of the practice should never erect any building in the same town, it should be "so nominated in the bond."

The Gas Institute.

THE annual general meeting of the Gas Institute was held in London last week, and after the delivery of the President's address a number of papers relating to carburetted water gas, and incandescent lighting with gas under high pressure, were read; and a lecture was delivered by Dr. Frank Clowes on the table photometer and standard pentane lamp, which have recently replaced the old forms of candle photometer in all the testing stations of the London County Council and City Corporation. The President, Mr. T. Ormiston Paterson, in his address, pointed out that gas is being more generally and extensively used for cooking, heating, and power purposes, as is evidenced by the continued approximation of the day to the night load in consumption, and expressed the opinion that gas will soon be valued according to its heating value instead of by its illuminating power. Experiments made by the President at Birkenhead confirmed the statement that the duty (in lighting power) per cubic foot of gas consumed in incandescent burners is dependent upon the calorific power of the gas. This statement is commonly accepted in this country as correct, but we should like to know how British gas engineers explain the claim of Dr. Strache, of Vienna, that plain, non-luminous water-gas made by his process, having a much lower calorific value than coal gas, and consumed in burners without admission of air before the point of ignition, is giving as high a lighting value per cubic foot of gas consumed as is obtained from ordinary coal gas. Dr. Bunte also has shown that a mixture of coal gas with 20 per cent. water gas, having an illuminating power of only 3·1 Hefner candles, has fully as great a lighting value for incandescent gas lighting as the coal gas *per se* which had a higher calorific value and an illuminating power of 15 Hefner candles. If the lighting value of gas for incandescent lighting be dependent solely upon its heating value, and the statements of Dr. Strache and Dr. Bunte are also correct, the inference to be drawn is that a much higher light efficiency than that commonly obtained should be procurable from coal gas with its high calorific value. Extensive investigation is yet required of the relationship between light and heat in the Welsbach system.

Electricity Supply in Newcastle.

THE Electric Lighting Act of 1882 gave the Local Authority the power of purchasing the works of any supply company in its area at the end of a period not exceeding forty-two years. Corporations therefore stand in much the same relation to supply companies as landlords do to tenants. It is clearly then their duty to safeguard their interests, so that when the time comes for the purchase they may be able to exercise their rights to the best advantage. Mr. Mordey's report on electricity supply in Newcastle illustrates this point most forcibly. At the present time there are two supply companies in Newcastle, and their provisional orders have about twenty years to run. One of these companies obtained an Act of Parliament in 1900, empowering it to construct a new generating station outside the municipal area for the purpose of supplying electricity "in bulk." This new station is now in successful operation, and the company naturally want to supply part of their Newcastle system from it. The Board of Trade, before granting them permission, wished to hear the opinion of the Corporation, who have retained Mr. Mordey as their adviser. Mr. Mordey points out the multiplicity of supply systems in Newcastle, and that if each company develops on its own lines, then it will be practically out of the power of the Corporation to exercise its right of purchase at the end of twenty years, as the system of each company will only be part of a large general system which could be profitably supplied from the outside generating station, but which could not be supplied by a municipal station inside the area. He therefore strongly recommends the Corporation to purchase the supply systems inside their area by arrangement, and then interconnect all the networks so that one station would be able to supply all the demand during periods of light load. It seems to us that the right of compulsory purchase will be very little use to corporations if all they can purchase is merely a special network of very much depreciated cables. Judging from recent events, it looks as if the supply companies had found a way of evading the spirit of the Electric Light Act of 1882.

School Board for London.

AN exhibition of the art and manual training given by the London School Board was opened on Tuesday at the Examination Hall, Victoria Embankment. The work shown has been executed in day schools and in evening continuation classes, and also in the schools of special instruction for the blind and deaf. The teaching given is not of a technical nature, and does not interfere with the technical schools and classes of other bodies. The art and manual training in the day schools is calculated to awaken the interest and intelligence of the children both in art and in manufacture. If, for instance, a child has a leaning towards cabinet-making or modelling, the tendency receives some impulse, and the boy is in the right direction towards earning a livelihood as a useful member of society. Much of the work at the present exhibition is done at the evening continuation schools by amateurs, who find recreation after their day's work in drawing or carpentry. Of all the classes, that of woodwork shows the best results. Before a student may construct an article, he has to make a working drawing of it, besides large details in wood of the more difficult parts or joints; he may then make the object itself. We should like to see the taste educated by having better designs to execute, and the hand restrained from the liberal use of sandpaper. The teachers should as far as possible insist upon simplicity of design and directness of execution. These remarks are also applicable to the wood-carving. The drawing and design is not so interesting as last year—at least there are fewer exhibits of merit. The exhibition as a whole is a wonderful evidence of the liveliness of the School Board in a certain direction.

City and Guilds of London Institute.

LORD AVEBURY, in opening the exhibition of practical work executed at the Institute's technological and manual training examinations—now on view at the Imperial Institute—emphasised the value of technological education to the welfare of this country and the colonies, and pleaded for a more general recognition of the claims of science in the public schools. We think more systematic training in natural science in our schools would be a direct gain to the industries of this country. One of the most important factors in success in any undertaking is a mind trained to concentration, and accustomed to ascertain facts, not content with suppositions current as truth. It is pitiable to think of the amount of waste incurred annually through misdirected labour. Science as part of a general education is, however, a different thing to the teaching of science in its application to special industries, and the Institute, in their efforts to secure for the teaching of technology some recognised State aid similar to that given to the teaching of science and art, are endeavouring to prevent any overlapping in the organisation of their classes and examinations. During the last year teaching in several industries has been extended and strengthened by co-operation with trade associations. Silk spinning and weaving have been placed on a better educational footing. Paper manufacture, an industry of a scientific nature, in which the stress of foreign competition is largely felt, will now be dealt with by the Institute in conjunction with the Paper Makers' Association. The exhibition of candidates' work is of a very representative kind, including joinery, cabinet-making, building and carriage construction, mechanical engineering and drawing, metal-plate work, practical bookbinding, basket-making, needlework and millinery, beaten metal work and enamelling (from the Northampton Institute, London), weaving, plumbing and painters' work. It is, as it were, complementory to the exhibition of the London School Board manual training classes referred to above.

Discoveries at Knossos.

IN a short letter to the *Times* Mr. Arthur Evans reports fresh and important discoveries at Knossos, which he considers throw an entirely new light on the architecture of Homeric Greece. East of the great central

court he has found a suite of chambers with walls descending 20 ft. (that is, we presume, rising 20 ft. from the ancient ground level), and including the remains of upper stories. It is probably these "upper stories" which Mr. Evans especially regards as giving us a new idea in regard to Homeric architecture. In one of the chambers were fallen fragments of human figures in high relief and of splendid execution, "the rendering of veins and muscles showing a naturalistic skill never again rivalled till the Italian Renaissance." Explorers are, however, a little inclined to rhapsodise about the beauty of the works they discover, and we should be disposed to wait and see the figures or their photographs before concluding that they rival Renaissance art.

Battle Abbey, Sussex.

IT is stated that in consequence of the decease of Catherine, Duchess of Cleveland, who died on May 19 last, the Battle Abbey property will shortly be placed in the market. It had been purchased from the Webster family by Lord Harry Vane, who afterwards succeeded as fourth Duke of Cleveland, and died on August 21, 1891. Lord Harry Vane had married, in 1854, Lord Dalmeny's widow (*née* Lady Catherine Stanhope), to whom he bequeathed Battle Abbey for her dower house. During her residence there the late Duchess devoted many years to the compilation of her last work, "The Battle Abbey Roll, with Some Account of Norman Lineages," which John Murray published in 1889. Reputed copies only are now extant of the original muster-roll of the names of knights who followed the Conqueror from Normandy, but the accomplished authoress of the book spared no pains in her endeavours to trace out their histories and pedigrees. After the Dissolution, the monastery at Battle, formerly Epiton, and then valued at 987*l.* os. 10½d. per annum, was bestowed by Henry VIII. upon his Master of the Horse, Sir Anthony Browne, K.G., who began the building of the house. His son, elevated Viscount Montague, removed from Battle to Cowdray. In the earlier years of the eighteenth century Sir Thomas Webster, Bart., bought the property at Battle from the then Viscount Montague, his descendant sold it to Lord Harry Vane in 1857. The fine gateway of the Benedictine abbey, founded by William I., forms a conspicuous feature near the high street of the town, and several portions of the conventual buildings were incorporated in the mansion-house. The ruined altar of the abbey church marks, it is believed, the central position of the English camp; the supposed remains of the chapter-house were discovered in 1817. The estate extends over about 3,600 acres.

Kingston Bridge.

IF a sharp look-out is not kept on the proceedings of Tramways Companies, as well as Local Authorities, every stone bridge over the Thames, within the London district, will be spoiled. Kingston Bridge, a fine and dignified structure built by Lassidge in 1825, is now threatened by the London United Tramways Company, who want powers to widen it. The Chairman of the Select Committee of the House of Commons put the question—"You would not propose that the widening should be carried out by means of cantilevers?" to which an evasive answer was returned, to the effect that "there were two or three ways of doing it." From the nature of the reply we should conclude that the company do intend to use cantilevers if they can get permission to do what they like with the bridge; but that, knowing the proposal is likely to be opposed, they will not say so. Kingston Bridge is at present one of the adornments of that portion of the Thames; it is to be feared it will soon cease to be so.

The Pastel Society.

THE exhibition of the Pastel Society at the Institute Gallery in Piccadilly contains rather too much of landscape and too little of figure work, which latter is what pastel is best suited for. The infinite gradations of landscape effect can hardly be followed out with a material so little plastic, though it affords a good medium for the record of special effects in special lights. M. Ménard, in "Le Soir" (1) has been very successful in doing just what pastel can do with landscape, when the minute details of colour are lost in a half-light. So with Mr. Austen Brown's "A Grey Evening" (5) and "On a Potato Field" (6), where composition rather than colour is the main object. In "At the Ferry" Mr. Padgett has made a brilliant suggestion of sun-lit water seen from under the shade of trees; and he has confined himself to suggestion, which is all that pastel can really do with such a subject. Mr. Nettleship's animals (73 to 76) come out exceedingly well in pastel, as also Mr. Livens's fowls (100); and M. René Billotte has succeeded admirably in his moonrise effects (142, 143) and in his "Une Rue de Village" (144), though it does not answer to the sub-title, "La Nuit"; there is too much light and too much colour for that. Mr. Aumonier, in "On a Common" (159), and Mr. Peppercorn, in "A Note" (183), illustrate very happily the capacity of pastel for giving a brief memorandum of the general effect of a scene, on a small scale. M. Prouvé's life-size nude, "Ondine" (230), is too green in colour (this may be intentional) and has the waist of a Parisian fashion-plate figure. Mrs. Sutro, in "The Ploughman's Home" (233), and Mrs. Stanhope Forbes in "L'Ombrageuse Allée" (122) and "L'Avenue des Sapins" (124), show the capacity of pastel for giving the effect of bright dashes of light in a scene. Mr. Arthur Tomson's "August Night" (200) shows a great power in handling the materials so as to produce depth of tone by cross hatching in different colours. M. Guignard's "Le Dune près d'Etaples" (272) is one of the most admirable works in the gallery—exactly the kind of scene which pastel can best render, and which is treated with the greatest artistic feeling for composition and tone. The exhibition is a very interesting one.

FURTHER NOTES AT THE GLASGOW EXHIBITION.

IN our first article in the *Builder* of the 8th inst. we dealt with the general effect of the exhibition from an artistic point of view, and the contents of the Fine Art section. In this article we will give some further notes touching on the objects illustrating decorative and applied art, as well as on some other exhibits which cannot be grouped with any special class.

We may begin with a word on some of the subsidiary buildings in the grounds. The Great Hall, as it is called, suits its purpose very well as a concert-room, but in other respects is one of the least attractive of the erections. It is difficult however to treat a circular building in merely temporary architecture; a circular plan does not lend itself to picturesque effect, and seems to require a monumental treatment. The exterior appearance of the building is shown in Mr. McGibbon's sketch in our issue of April 6; the rotunda is kept exceedingly plain externally, while internally the colour decoration is rather too gaudy. The interior architectural design shows an arcade on columns all round, the columns cut in two by a gallery, on the soffit of which an apparent capital is given to that portion of the column, to take away the bald appearance of the columns going right through the gallery. The iron dome is underdrawn by a ceiling treated in ribs and with somewhat the general appearance of a velarium, though not actually such. Not the slightest attempt has been made to render the organ a decorative object, which is to be regretted, considering how easily an organ-case lends itself to decorative effect, nor is there the slightest break in the general design at the point where the organ comes in, so that it looks as if it got there as an afterthought; yet it surely must have been known that there was an intention to have an organ there.

The Canadian pavilion is a much more gratifying erection; as a temporary structure it shows excellent taste as well as originality and piquancy in design. The Indian theatre pavilion, though less original, is also picturesque, with its centre picked out in bright colours, its side walls in horizontal bands of alternate red and yellow, and small turrets at the angles crowned by little metal cupolas. The Agricultural pavilion is treated with a strongly marked wooden modillion cornice; the higher central compartment has a small dome, flanked by pillars with vase terminals rising above the roof line. One of the best and most picturesque erections in the grounds is the Van Houten Cocoa pavilion, designed by Mr. A. N. Prentice. The Japanese pavilion is a mistake; instead of any attempt at a characteristic exterior, we find a commonplace pilastered building, its nationality only marked by a kind of trophy of Japanese curly clouds and sunrays above the entrance door, behind which the conventional figure of Britannia presents a most absurd contrast. If however Japan lacks character in her pavilion, this is amply made amends for by Russia, whose four pavilions, which at the time these notes were made were still in process of internal arrangement and not open to visitors, are certainly, in their exterior architecture, racy of the soil, and about as curious and fantastic erections as it would be possible to see—somewhat too fantastic, but at all events they are not commonplace, and there is a good deal about their treatment that is very clever.

Near the west end of the main exhibition building, and between it and the Art Gallery, is the special pavilion erected by Messrs. Templeton for the exhibition of carpets woven in Glasgow. They have chosen to make their pavilion in the form of a Moorish mosque with a cupola covered with Saracenic strap ornament; the imitation is a very crude one externally, and hardly worth carrying out, but internally it produces a building very well suited for its purpose, giving a series of large recesses for the exhibition of separate classes of carpets, and an effective top lighting. The compartment to the left on entering is devoted to carpets designed by Mr. Walter Crane, some of which are exceedingly fine; that at the left, a dark neutral green carpet with light-coloured flowers connected by sprays of a lighter green; that on the floor, a fine geometric-pattern carpet, very large in scale, and such as could only be used in a very large room; and, facing the spectator, one of beautiful design hung on the wall. On the right are one or two designs which, fine in themselves, we object to as carpets, because they are distinctly upright designs, growing in one direction, and therefore properly only fitted for a vertical position as hangings; a carpet should be the same design every way, with no right or wrong way up. The excuse offered by the makers is that it is a matter of economy in weaving, and that it costs less to work a design all one way than to work it in symmetrical repeats in opposite directions; this one can quite understand, but when one comes to carpets of the sumptuous class of work shown here, economy of this kind seems out of place and hardly worth consideration. Other bays of the building contain very fine carpets of different types of design; in the

furthest bay is a large and grand carpet of French Renaissance type of design; on the right is a bay of Oriental carpets. All the work is of the first class, and most of the designs are fine and artistic, and no visitor should omit inspecting the interior of this pavilion, which forms one of the best artistic points in the exhibition.

Coming to the interior of the main building, officially called the "Industrial Hall," we find the principal portion of the space east of the central dome devoted to foreign and colonial exhibits, and the bulk of the floor space westward of the centre to British exhibits. Commencing at the portion nearest the central dome, we find ourselves among silversmiths' exhibits; but there is nothing to be seen here worth special comment; the cases represent the usual average product of first-class silversmiths' establishments. Two furniture exhibits with special houses to themselves, which we come to next, stand in a different category. Messrs. Wylie & Lochhead, of Glasgow, are really artistic cabinet-makers, and their suite of rooms presents a collection of furniture and other objects marked everywhere by good taste and refinement, and with a certain amount of originality, though of course there is to some extent a repetition of the characteristics which we meet with elsewhere as representing the taste of the most recent school of applied art design in this country; there is some appearance too of the influence of the new German school of furniture design, though fortunately not carried to the excess of sinuosity which one sees in German up-to-date art publications. This however is a most satisfactory exhibit as a whole; among the best things we may mention the settee in the dining-room, and the fireplace with repoussé brass fender and surroundings. Next to this Messrs. Heal & Son have erected a room with a characteristic exterior wall, of dark grey bricks below and white picked out with green above; and inside they show a suite of bedroom furniture, of admirable design and make. The ornament is chiefly in the way of simple forms of inlay; the wardrobe with a central curved bay, decorated in this way, is a most pleasing piece of work. Of the whole exhibit it may be said that, though people may differ as to preferring this or that form of furniture for their bedrooms, we think that it would be impossible to pick out any detail in this exhibit which could be said to be in bad or wrong taste. That is a great thing to say for a manufacturing firm which (we believe) produces all its designs within its own doors, and it shows what real progress has been made in the understanding of applied art in this country, that such a show as this can be produced by a London trading firm.

The Irish Peasant Industries Association have got a well-arranged stand with a Moorish front to it (why Moorish?); the contents it does not come within our province to describe, we only mention it as a decoratively-arranged stall. The same may be said of the Morocco exhibit which faces the end of the central avenue; a stall or house of Moorish design and gorgeous in colour, containing an assortment of Oriental textiles such as we are familiar with. For the present we may quit the Industrial Hall, having reached its western boundary, whence we emerge into the long annex called the Grand Avenue, which starts off in a quadrant curve southwards, and then continues in a straight line in a north-westerly direction. Down the centre of this avenue, for the greater part of its length, is arranged an immense collection of large and minutely-finished models of ships built on the Clyde; and though it does not come within our province to notice these in detail, we cannot refrain from a word of recognition in regard to the splendid manner in which this great Clyde industry is illustrated The sides of this avenue are lined with booths or stalls largely devoted either to furniture or to materials or processes connected with building; and these we may pass in review as far as space allows.

Taking the left-hand side first, the Pilkington Pottery Company, just at the angle turning into the quadrant, have a good exhibit in the shape of an erection in which the piers and main part of the walls are covered with green glazed facing tiles, and the walls at the back lined with decorative panels and tile pictures; the decorative designs are generally in good style and the colour effect satisfactory. A good many of the succeeding exhibits on the same side we can merely mention briefly. Messrs. John Finlay & Co. (Glasgow) exhibit some furnishing metal-work among which are some metal utensils of simple character but good form; they also exhibit a range. Messrs. Woyka & Co. have a show of decorative mouldings in woodwork; Messrs. Wilson & Boyd, cabinet makers, exhibit furniture which cannot exactly be called artistic, but which is good in its way and on pleasing lines; the Bennett Furnishing Company, of Glasgow and London, show school desks of solid and practical design. Then we have another succession of ornamental cabinet-makers' work, of which the first in order, that of Messrs. H. Gardner & Son (Glasgow), includes a bedstead which is worth attention for its good lines and careful execution in detail; the end shows a curved rail dropping between two square angle posts and supported by thinner upright rails between. There is style in this; and here as in some of the other furniture exhibits one finds that some things have style and some have not. Messrs. Taggart's furniture is what is called "handsome" furniture, but has not the quality of style; nor has the work of the Furniture Union Company, nor that of Messrs. Jebb & Sons, though there is a solid dignity and sumptuousness about their large leather-covered furniture which is praiseworthy. Messrs. Stewart Pollock & Co., who have a large exhibit, show some good inlaid and brass-finished bedroom furniture, somewhat too pretentious for our liking, but good of its kind and admirably finished; and there is a bedstead in a simple classic style which is better than the more ornamental work. We should not omit to mention the exhibit of Messrs. Francis Smith (Glasgow) of office furniture, not decorative (nor intended to be so) but exceedingly well made, especially in the attention which is bestowed on the forms of handles and pulls to the drawers, which form part of the structure and will not come off; a frequent source of annoyance with drawer handles.

After passing the side entrance we come to a few exhibits of a more practical nature. Messrs. Chubb exhibit the actual safe door, of Harveyed armour plate, which was tested by a blow from a hundred-pound shell fired at it, as before mentioned in our columns. The door hardly shows any contusion. This door, when closed and locked with its clutch bolts on each margin, is without handle, and a magnet is provided to pull it open. They show also a safe intended to hold large drawings, with large shallow drawers, such as are generally used in architects' and engineers' offices, but which are here enclosed within a steel safe. Messrs. Milner, in the next stall, exhibit the construction and working of their "banker's door," in which a strong steel framing is pushed out at all the margins simultaneously, working into a rebate all round, by the turn of a single lever in the centre of the door. Messrs. Hope have an exhibit of very good metal sashes, and Messrs. Macfarlane a show of their steel ware, viz., cups and saucers, candlesticks, &c., made in thin steel and enamelled in colours; these form unbreakable ware of very pleasing effect. Messrs. Ritchie (Belfast) have an exhibit of their roof sheathing felt, showing the raw material and its application on a model wooden roof.

Opposite to these exhibits, and in the centre line of the avenue, are some articles of decorative character. Messrs. Erard have a small show of their pianos, with which we are only concerned here in regard to outward appearance and design, and on this head we may compliment them on the treatment of the inlaid grand piano which they exhibit, and which stands on well-designed framed legs which are a satisfactory contrast to the ordinary piano support. Messrs. Paterson, who are we believe a Glasgow firm dealing in pianos, have some fine examples, among them the Broadwood piano designed by Mr. A. C. Blomfield and illustrated in our issue of March 23; it looks even better in reality than in illustration, and is perhaps the best grand piano case which has been designed in this country. A Steinway in the same exhibit, decorated with rich and flowing inlay designs, though perhaps a little exuberant, is a fine piece of work; the weak point in it is the treatment of the legs, which are not well joined on to the rest, and look as if they had originally belonged to another design. The British Charrier Wood-carving Company have a well got-up exhibit of their machine-carved ornament, chiefly in the shape of lengths of repeating ornament and enriched mouldings; in a notice affixed to the exhibit they maintain that this is really "carved" wood; but unless it is gone over by the hand (which is not asserted), it is no use saying this; machine work is not carving in the proper sense of the word. They show a small room completely fitted up, as far as woodwork is concerned, with their products, and the general effect is pleasing enough, but it can never have the artistic value of hand carving. It may be worth while, however, to employ this method for the simpler types of repeating ornament. The exhibit of Messrs. Burroughs & Watts, the celebrated billiard-table makers, forms the close of the central series of exhibits, the *pièce de résistance* being a most elaborately carved billiard-table in unvarnished wood; an exceedingly good piece of work as far as execution goes, but it fails in point of design; it is an attempt to produce effect by sheer richness of ornament, without having had good general lines of design as a basis to work on.

Returning in the contrary direction, along the north-east side of the avenue, we find in the centre line, next to the billiard-table exhibit, a very characteristic little room fitted up by Messrs. George Walton & Co. "designers and manufacturers"—so their *affiche* reads. The iron grille gates which close their small house are excellent specimens of effective but unpretentious metal design; they were closed at the time of our visit, but as far as one could judge by looking through, the whole of the objects exhibited seem to show original and artistic character. On the other side of the alley the Tynecastle Company have a fine show of their embossed and gilt wall coverings, rich in effect and all in good style; they also show a room representing a part of a steamer's cabin, showing the application of their work to cabin decoration. After this we come again on various furniture exhibits, of varied merit. Messrs. Campbell & Co. (Glasgow) take up two bays with carved walnut furniture of good type but with no special quality of style. Messrs. Archibald Stewart & Co.'s office furniture is good of its kind, their decorative furniture pleasing but presenting no special quality. The Greenwich Linoleum Company exhibit a number of specimens of their material, some with geometric patterns which are really good and suitable to the material and its purpose; the floral patterns are not. The Silicate Paint Company exhibit various articles painted with silicate paint; there is nothing special in the designs; it serves to show the application of the paint. The furniture exhibit of Messrs. James Simpson (Glasgow) has some special character; they show a large cabinet in which the stiles are of nearly black wood and the veneer panels of figured wood; we are told that it is entirely walnut wood, of different types; the effect is good, though there is no specially artistic quality in the designs. Mr. John Crawford (Glasgow), wood carver, has got up a spirited and original piece of work, a kind of carved wood frontal, filling up the bay which he occupies; some of the details are rather odd, but it is a clever bit of work. Messrs. G. Rome & Co. (Glasgow) exhibit their fibrous plaster by means of an architectural front with Louis Quinze plaster wall decoration in the rear. Messrs. Hampton & Sons have a small but very rich exhibit, one may say in all styles; we prefer to see a firm choose a style and work it out, instead of trying to provide something for all tastes. The best thing in their collection is the small cabinet with inlays in line, and a front on an oval plan; there is character and refinement in that.

Messrs. Doulton have an exhibit near the east entrance, containing examples of their well-known glazed stoneware, as also sanitary fittings and materials (which will be considered under a separate heading). At the east end of the building, in the Danish section, there is an interesting exhibit of the work of the Royal porcelain manufacture at Copenhagen. This consists of two or three distinct classes of production. There is a china with light bluish grey ornament, floral or animal, on a white glazed ground; in this class also are numerous well modelled animal forms in porcelain, realistic in form though not in colour. Then there is a pretty and more rustic variety of work, with thin-lined blue patterns on white ground, and open-work borders; and there is a more decorative type, with a good deal of colour and gilding, and also with open-work rims. This exhibit is worth attention, as it introduces us to a special class

of work which is of considerable artistic interest. There is a considerable exhibition of Glasgow porcelain and pottery ware. Messrs. Cochrane & Fleming make a large show of work with no special character; Messrs. MacDougall & Sons a somewhat similar exhibition, containing work which has, however, a certain Parisian stamp about it, with a clever use of the figure as ornament; and Messrs. Sneddon & Sons, among the numerous articles they exhibit, show what they call the "new Worcester Pottery" of James Hadley & Sons, for whom we presume Messrs. Sneddon are the northern agents. The characteristics of this ware are that it has a semi-porcelain "body" of exceptional strength, enabling it to retain the exact form of the original model during the first firing process; a new application of colouring clays during the "casting" stage of manufacture; and a leadless glaze, said to be "of exceptional brilliance"; this exceptional character we do not recognise, but the ware is a good one and worth attention.

We shall continue our notes in future numbers.

THE ROYAL INSTITUTE OF BRITISH ARCHITECTS.

An ordinary meeting of members of the Royal Institute of British Architects was held on Monday at No. 9, Conduit-street, Regent-street, Mr. Wm. Emerson, President, in the chair.

Death of Mr. J. A. Russel Inglis.

Mr. Alex. Graham, Hon. Secretary, said he had to announce with deep regret the death of Mr. J. A. Russel Inglis, of Edinburgh, who was elected an Associate in 1894, and who was the Soane medallist in 1897. Mr. Inglis was one of their younger colleagues of great promise. He was known both in Oxford and Edinburgh, and was for a long time in the office of Mr. Hippolyte Blanc. There were a good many of their students who had come across Mr. Inglis in his earlier days, and he was sure they would join in their regret at losing so distinguished and promising a colleague under such tragic circumstances. Poor Inglis had suffered from insomnia, and he took an overdose of a sleeping draught and died suddenly last Sunday night. They could ill afford to lose a young man of such promise as Mr. Inglis.

The Architects' Benevolent Society.

The President said he had the pleasure to announce that the appeal which he made at the annual meeting of the Architects' Benevolent Society had been successful, inasmuch as he had already received 1,189*l.* The Society was greatly indebted to the gentlemen of the allied societies who had so promptly and so liberally responded, and they were particularly indebted to Mr. Macvicar Anderson. He hoped the announcement he had made would not stop the flow of subscriptions as the demands upon the charity were large and ever increasing, and the donations and pensions which it was able to give were eagerly sought for. No one knew better the needs of the Society than the late Mr. Arthur Cates. He was for many years its treasurer, and at the time of his death was a trustee. He had seen it announced in the *Times* that Mr. Cates had left the Society a legacy of 1,500*l.*, and that in itself was sufficient to show that the Society needed more liberal support, and that the money entrusted to the Committee was wisely distributed. They had received no official announcement at present with regard to Mr. Cate's bequest, and therefore he simply mentioned it as from the *Times*.

Professor W. R. Lethaby then read a paper on

Education in Building.

Professor Lethaby said he was sure that all the usual apologies would apply to his paper. He had had very little time, and one of the chief difficulties was that in writing he tried to have in view his audience and he found he could not, and so he had written it to himself. He wanted his title, "Education in Building," to suggest something which was usually meant by architecture, but also to cover the whole range of activities associated with the art of building. Their current use of the word architecture was likely to be very ambiguous—it meant anything or nothing, according to the verbal needs of the moment. Attempts were frequently made to give the word architecture a definition, but it was essentially one of that class of words which had suffered by shifting its meaning and by decay—it was almost one of the words which folk-loreists could treat as a myth-making word. The word architect was very infrequently found in the Middle Ages, and then only as a loan from the Latin, meaning "master in building craft"—the master mason or master carpenter. In the fourteenth century a carpenter was called an architect, and there was a later example of a man called Harrison, who arranged the pageants for James I. in 1603, and who signed himself "joiner and architect." The use of the word "architecture" was just as infrequent. The words in use for architecture in the Middle Ages were "carpentry," or "masonry," or "mason's craft." Each new effort in castle or cathedral was called the "Work." The great Royal Palace in Paris obtained in this way its name of Louvre, which was handed down to the present time. Everything was known in France and Germany of the manner of production of their mediæval buildings, but in England they knew little. There was a curious reserve in England as to the architects of mediæval cathedrals, although the facts lay ready at hand for any investigator. Vague theory still held the field; they went on repeating that the architects were unknown, or that these cathedrals were the works of monks or travelling freemasons, or were designed by clerks like Edward of Westminster or William of Wykeham. But he believed the main facts were ascertainable. Carpenters and smiths and masons were early organised into distinct guilds. In the twelfth century the carpenters were spoken of before masons, but in the thirteenth century the workmen were generally spoken of as masons and carpenters. These crafts organised the education of the body by an apprenticeship system, which, while placing the youth with a given master, did it under the sanction of the guild in general, and even of the community. Practically, in London, to be entered as apprentice was to be apprenticed to City life. Mastership in craft and the freedom of citizenship were taken up together; a mason's or carpenter's boy passing through his seven years' course was received into the guild as master. He believed that the curious thing called the freedom of the City, which was now handed about in gold and silver caskets, was merely the natural right of every London craftsman who, having gone through seven years' apprenticeship, should receive the freedom of his mother city. "Master" was a definite degree of craftsmanship, and granted exactly like the Mastership degree at a University after apprenticeship in letters. There was, in fact, an exact parallel in the taking up of the gown and hood; and the master craftsman in the Middle Ages stood in degree alongside with the master of letters, and the master of masonry and the master baker stood with the master of letters or physic. His fur robe and his distinct cap marked his mastership in craft. The word master did not mean an employer, but a graduate of the guild. The real explanation of mediæval art was to be found in the fact that by his guild the workman claimed an honourable place in life. The craftsman prided himself on his tools, as the knight on his sword, and workmen even set themselves to gain coats of arms for their guild, which arms were engraved on their own tools. They could hardly realise the airs the craftsman of London gave himself. He was part owner of the City, and he would have no lord's man in his guild, and he set himself against the handling of goods for profit. This guild organisation was a chief factor in the Middle Ages. At the end of the thirteenth century in Italy and Belgium, and to some degree in England, there was a great struggle between the two powers—the nobles and the organised guilds. As now, if a shed was to be built the carpenter was called in, and if they wanted a wall to be built the mason was called in. So, in the Middle Ages, if a house was to be built it was left to the chief carpenter, and if it was a church to the mason. The employer had, of course, a considerable say in the matter, and some barons very closely laid down the lines on which their castles were to be constructed. With works of great importance, like a cathedral, an agent might be employed to represent the employer—such a man as William of Wykeham. When such a work as a cathedral was going forward a resident mason and carpenter were employed. The title of Abbey Mason at Westminster was changed only last century, and it was quite probable that there had been an unbroken succession of masons at Westminster from the time of Henry III. He spoke of normal conditions, of course, as cases might be found where some mason, recognised as a great master, would advise by consultation, and the resident mason would work under his advice. It was often said that there must have been some co-ordinating authority, or the carpenter would wish to put the roof upside down; but the reply to that was that the carpenter did not wish to do so, and the employer would have dismissed him if he had. Moreover, the chief master employed, like an officer to-day, would be the general consulting leader. "Instead of vaulting this," the mason would then say to the employer, "we will get Bob to put couples on." There was no artistic nonsense about it, but it was in the directness of the work that the interest of old buildings lay. It was a matter of true evolution; it was just doing work "as it ought to be done in the craft of masonry." It was a disgrace to their scholarship and interest in their own country that not one name of the old English master carpenters or master masons were to be found in the new "Dictionary of National Biography." There was an enormous amount of material at hand which was hardly ever looked over. The rolls of Westminster Abbey had specially interested him, as they dealt with their greatest work of art. He found that the term master mason was in general use in the twelfth century, which implied that they had already in existence the organised guild which defined what a master was. Professor Lethaby proceeded to quote liberally from the rolls of Westminster Abbey in support of his contention that the real architects of the Abbey were the master craftsmen employed by the King. Thus in 1244 they found that preparations were being made for rebuilding the Abbey by Henry III., and in that year there was a mandate from the King that the Sheriff of York should confer with Simon the Carpenter and Henry the Mason. The King's Carpenter then in charge of the work at Windsor was Master Simon, and Henry the Mason may have been associated with him there. Probably this Henry the Mason became the first master of Westminster Abbey. Edward of Westminster, the King's Clerk at the time, with another represented the money side of the business. Four years after the commencement of the work they found from the accounts that Master Henry received 60*l.*, and Master Alexander received a sum of money for timber, and there was not much doubt that Alexander was the architect carpenter with Henry the Mason. Later the King ordered 600 or 800 men to be put on the work, and a mandate was addressed to Henry, the master mason of the works. Master Henry was succeeded by John of Gloucester in 1254, but although they knew more about Master John of Gloucester than of Master Henry, the character of the work was laid down in the ten years of Master Henry, and they must call him the mason architect of Westminster Abbey. In 1256 there was an order that the work should be overlooked by John, the King's Mason, and Alexander, the King's Carpenter, and the rolls showed that they received fur robes. In 1256 the ancient gateway of Guildford Castle was constructed by John and Alexander, and there was mention of work done at Woodstock by the same mason. In 1258 the King rewarded John of Gloucester by giving him a house; he died in 1260. John of Gloucester was succeeded by Robert of Beverley, whose name occurred in 1259, when Robert of Beverley seemed to have been associated with John of Gloucester, and after the death of John there was probably an interruption in the work and it was at the time of the Barons' wars. In 1263 the name of Master Robert of Beverley appeared, but there was no mention of Abbey works until 1267. About this time John of St. Albans was the King's Sculptor, and he probably carved the fine figures in the interior. The accounts of 1269 and 1272 still mentioned Robert the Mason. Robert was employed on the work on the accession of Edward I. The great work of Edward I. was the completion of the Tower of London, and in 1274 they found Robert of Beverley mentioned in connexion with that, and again in 1276 in connexion with the Royal Mews at Charing, and in 1278, Rober the Mason, with the Aldermen of London conferred as to what damage would arise if part of the old city wall in Ludgate was pulled down so as to provide for the old Blackfriars

Church. About this time records showed that the annual expenditure on the Tower was 2,000 marks, an enormous sum in those days. In 1278 the accounts of the King's Clerk were audited by Master Robert of Beverley, and in 1279 Master Robert of Beverley was still Keeper of the King's Works. Robert the Mason was evidently a great favourite of the King, who on one occasion gave him a tun of wine. He was succeeded by Richard Crundal, the King's Mason, who was responsible for the Cross at Charing to Queen Eleanor. He died in 1294 before the cross was finished, and it was carried out by his brother Roger. At this time also Richard of Witham was working at a cross. In 1322 they still met the name of Master Witham, as King's Mason, and he was succeeded by Master Thomas of Canterbury. In 1326, William of Ramsay worked as mason at the Royal Works and he was a great London master. He built the beautiful chapter house of St. Paul's, begun in 1332, and in 1338 he was appointed Chief Mason and Chief Surveyor of the King's Works. He was probably the William of Ramsay who was on the Common Council of London in 1348. Professor Lethaby then gave the names of other King's Architects from the time of the Black Death. He believed that the accounts of the Greek building customs were much the same as those he had referred to in England, and in Persia, India, and Italy the thing was practically the same. Everywhere building developed by experiments of practical masons and carpenters. It might be impracticable to bring back that state of things, and it might not be a desirable state of affairs, but it was necessary to recognise that the evolution of masterly building was what was meant by the words "ancient architecture." In considering the future and the present in the light of the past the question was, What was there left for them to do? Should they aim at reviving the forms of some still untaught style—the style of Mycenæ or of Mexico, for instance? They had had quite recently the evolution of perspectives, "architectural printing," and base ornamentation. If he might suggest a name for it at all he would suggest the Syndicate Style. They must turn in a practical way to the art of building to-day supported by the experience of the past. Archæology was a very amusing study, but in its present form it was only a branch of history. As to proportion, nobody knew anything more about that than that work done with a large reasonableness looked well. Nothing was better proportioned than a North-Western engine to its driver or a bit of plumbing to the plumber. As to the principles of design, one architect used to boast that he never used iron girders in his life, and another said that modern architecture would be born of iron and glass. With regard to beauty—that subtle and elusive essence which spoke through man's nature and work—no general reasoning could be adduced on it save so far as a man might try and explain what moved and touched him. Work certainly was a serious part of life, and it was work they had to teach. Nothing really new or beautiful could spring in architecture except from reasonable work. It was sometimes said that if they were only ignorant there would be hope, but instead of the blankness of ignorance he thought it would be better to have the fulness of knowledge, which voluntarily went its own way. How far should the study of building go?—all the way or part. He thought they should study it in all ways. They could spend more time at the work and less in the office. They could learn much about building by mixing with the men who still handed on amongst themselves the traditions of their craft. One man knew how one thing was done in a locality, and another knew something else. One remembered how stone was axed; one remembered that they put two coatings of skimmed milk on ceilings; and another that hearthstones should be better set in fireclay, and so on. They were living through a period of quick change in those things, but probably the most valuable work they could do was to gather together the old recipes of the workmen which had survived through ages. These rough men, the "so-called British workmen," represented the mediæval architect, and it was absolutely necessary that there should be some common relations between the architect and them. As it was, he had never gone on a building and watched them work but what he had wished to beg their pardon for his own ignorance. From the organised trades one might get advice as to local materials and labour. Those unions in a much changed form represented the old guilds, and he felt certain that in time to come they would assume more and more the functions of the old guilds. At present they were fighting the war of wages, but he felt that with the almost entire failure of the apprenticeship system the teaching would come back to the men themselves. Masons would again have to teach masons, carpenters carpenters, and plasterers plasterers. Even at this moment the plasterers were attempting to make those entering the trade go to the technical schools which existed. If they got back the definition of mastership in craft once more, and if a connexion between the organised trades and the organised technical schools be set up they would get the mediæval theory of the boy being apprenticed to his guild. The art of the monasteries was the flowing out in illuminated books, illuminated glass, illuminated wall surfaces of the security and discipline of the cloister—religion if they liked, but still peace in work. The art of Florence, Bruges, Paris, and London in the thirteenth century was the art of the organised crafts—call it civil government if they liked, but the workers' pride and reward was in the work of their hands. He was certain that where labour was honoured there art would be found, for honourable labour was art, and that proposition must stand. They must try and encourage workmen by every means in their power. He had often wondered whether it would not be possible for the men on a given work to elect a spokesman who would have access to the architect, but he supposed the builder would say it would never do for one of his own men to report; but the answer was that it was the work which paid the worker, and not the agent. Again, they must have schools of practice and theory and experiment and research. Building schools existed already in several foreign cities. It seemed to him that such schools, representing a very large and important industry, should be established and assisted out of the public funds. In a big London institution he would like to see all building crafts carried on side by side experimentally, where experiments might be made in brick-arching and stone-cutting and timber-framing, and so on. The question of education in building to be solved must reach all classes of men engaged in building, and it must set itself to improve the whole mass of building done in England. If they were to claim public help, he felt they should get rid of visionary ideals and sectarian narrowness, and stand to gain with the common gain. It would have been well if they could have been ready with a scheme in which all might have joined a dozen years ago, when technical education was first being practically dealt with, but he fancied, unless they were less vague in their aims, nothing would be done for another dozen years, and that would be a calamity. To sum up, natural living architecture would have to be refounded on common building—it could stand on nothing else.

Mr. Paul Waterhouse, in moving a vote of thanks to Professor Lethaby, said that before they entered the room doubts were expressed as to whether it would be an education for the young, or the ancient, or the middle-aged, and they found that all their fears had been realised. The lesson had been meant for all of them, and he hoped it would do them all good. He confessed that when he saw a man of intelligence and learning approaching the Middle Ages he had fears that the veil which hung over the Middle Ages was about to be removed. But though they had learned much from Professor Lethaby that evening, there were some mysteries which still remained. Professor Lethaby had insisted once more on the importance of the guild system in the Middle Ages, and had shown them, by examples to which none of them could take exception, how successful that system was. Of course, he might have carried his arguments further, and insisted on the existence of guilds at a much earlier date. They had had the architect knocked out altogether as he had been knocked out before, but it still seemed to him that the question was partly unanswered. There still seemed to be a doubt as to who designed these things. They had ample evidence that to superintend was one thing and to design was another, and they were brought face to face once more with the conclusion that the buildings of the Middle Ages, however they might look at it, somehow or other conducted themselves; that was to say that, looking at a building like Westminster Abbey, they were reminded once more in the evidence they had had that evening that some Divine Providence designed the building, and that man was more an instrument than an originator. In fact, he believed that was the conclusion which Professor Lethaby would bring them to, and it brought out the great contrast between the architect to-day and the architect of the Middle Ages. It brought it out so strongly that he thought they would feel it was impossible for them to revive, even with the help of the trades-unions—who hardly looked like giving help—the condition of the Middle Ages. The great contrast of the architect to-day with the architect of the Middle Ages was that they found themselves faced by new inventions, and no doubt the true answer of the problem to-day of design might be, as was the design of the Middle Ages, simply skilful continuance. All the same, it seemed impossible at this period of history to neglect design as a preliminary study for architecture. In fact, he was sure Professor Lethaby did not mean them to take the view that the past could be disregarded. It might be the duty of the architect to reject the traditions of the past, but he could only do his duty after he had learned what had been done. When he was a master of that he could turn it over and go on his own way. The New Testament did not make mention of an architect, but in the Greek Testament the word architect was applied to St. Paul as a "wise master builder" who laid the foundation. From that it appeared that at all events in one period of history there was an architect who could do so useful a thing as to lay a foundation. He would like to make one remark with reference to a form of contract he found some years ago in a book—Gardener's "History of Dunwich," which was one of the towns submerged by the sea on the East Coast. In that book there was a reference to the contract for building a tower. The tower was built by two men paid much in the same way as they had had described that evening. They were paid in tithe, and got fish and a coat a year if they were good men. But if one read the contract carefully one realised how extremely simple was the problem laid before the men. They were simply bound down to do a certain number of things, and most of them were to be imitations of other buildings in the neighbourhood. It taught one once more the lesson that in the Middle Ages, whatever they did—and they knew they produced excellent results—there was no question of striving for originality.

Professor Pite, in seconding the motion, said it really was a very extraordinary paper and one which he imagined none of them were able to anticipate, and at times they did not quite know to what conclusion they were being skilfully driven by the serious and ascertained facts with regard to mediæval building, which had been so thoroughly laid before them. That mediæval architecture evolved itself step by step was a fairly self-evident proposition, but he thought he must join issue with Mr. Waterhouse inasmuch as they did not find in the work the architect as they knew him, the architect as they trained him, or the architect as they thought of him. One could imagine there coming into the scheme of Westminster Abbey a man with a fine idea of what a cathedral should be—an idea based on something outside the narrow limits. The development seemed invariably to proceed from impulse, and sudden impulse, and an impulse which existed, at all events, unchecked until the time of the Black Death. They saw the process of development arrested in the western end of the nave of Westminster Abbey, and arrested in a singular way. They found development arrested, and the previous work at the eastern end was nearly copied. There were other instances of this view of mediæval architecture, which certainly brought before them the spectacle of a mind burdened with that originality with which they all suffered in this new century. He was thinking of such a work as the west front of Salisbury Cathedral or the west front of Peterborough Cathedral. One looked at that and felt that they were altogether out of the tide of development. A new element had come upon the scene. A poetic thinker had dealt with the material at hand. When they thought about that and sought to understand how it was arrived at they found that there was one bit on another of Romanesque. The types of the Romanesque

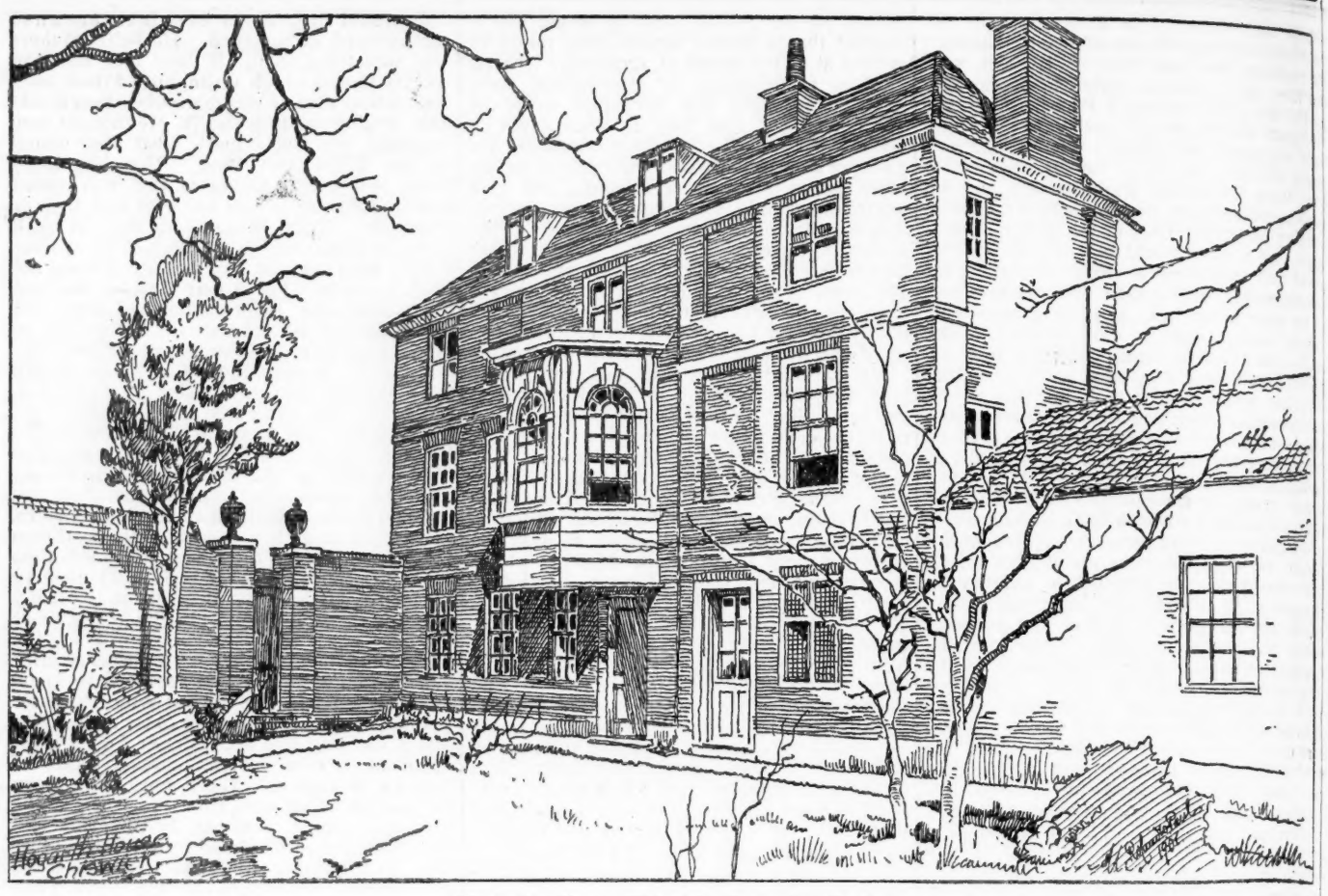
abbeys and churches in England were undoubtedly original—the intention was manifest; for instance, the west front of Lincoln, with the three great arches, which he found suggested the great arches of Peterborough, and the great mass of arcade walls, which might have suggested Salisbury. They found this poetic element at work, but it seemed to have been introduced from outside and set aside from the regular development of mediæval building as such. They came to the Renaissance, and a new world was set up for the world that then was—a world of antique art and discovery. It was then that the architect as we now know him arose—the man who, without being trained in the handiwork of the crafts with which he dealt, yet dealt with the material as so much a part of the picture, and so in that way he dealt with the new architectural forms which had been discovered, and arranged them and applied proportions to them, and watched the effect. Time moved on, and they found that the mysterious Spirit of Art slackened in her grasp of the building arts. The arts became dead, and as the artistic instinct seems to lose power over the architectural, somehow it seemed to give power to the craftsman. If they looked to the eighteenth century in England they found that imagination had lapsed, but the perfect skill of the domestic builder was in their midst. They used the Renaissance forms and arranged them as the early architects arranged them. That was killed at the end of the eighteenth century again by what was called the Gothic revival. Here they would do well to contemplate the problem of future style—to ask where they were and how they were to design this building and that. Professor Lethaby's position was a logical one, but it would be a difficult one to accept, because it would be a difficult one to work under; but if the position was sound it would sooner or later assert itself, and they could not afford as a profession and as architects to go on arguing in the quagmire of styles. They could not with self-respect retreat back upon Victorian development; they could not pick up any of the lost threads of the last century and start again with them. There was a time when they were threatened with a Chinese revival shortly after the time of Horace Walpole. What was the new century to be threatened with? That brought him to a point, which was the position they held as an Institute with regard to education in art. They could, of course, only work with the existing traditions of the profession. Could they in their excellent wisdom insist on a knowledge of one style or another? Was the time yet come when they could dispense with the channel which existed between the art of design and the art of construction, and dispossess themselves of the idea, which, unfortunately, was a fact, that men who were good at design were bad in construction, and those who were good in construction were bad in design. Until they had attained that point Professor Lethaby would have been preaching to them in vain; that time must be arrived at they all admitted. They admitted that a properly-qualified architect was the man who should be a good constructor and a good designer. But they could not be content with that idea. They must do their best to get some solid doctrine of architecture into their own system, and he only hoped the paper they had had that night would lead them to heart-searching in this matter. In that Institute they were in a very curious position. They would remember the circumstances connected with a manual drawn up ten or twelve years ago, with regard to the examinations in architecture, wherein it was pointed out that examination in the art of design and the art of architecture was hardly possible. It was not considered to be at all events proper and desirable, and the Institute at that time had all its examinations in design conducted in a different way from that in which they had previously been conducted. But the position generally was unchanged, and when they came to consider the admission of Fellows to the Institute the policy of the Institute offered a complete reversal. The principle was accepted with regard to Fellows provided they were good constructors and provided they were accepted and reputable practitioners. This body did not examine them in design, but examined them in those parts of their professional life and work which affected the good of the country. He thought the time was coming for the sound sanity of that policy to be applied to the Associate of the Institute as well as the Fellow, and he would like to suggest that a further modification might be arrived at by the Board of Examiners with regard to examinations in architectural style. Architectural style was altogether worn out and played out, and they did themselves no good by perpetuating it. They might ask for a proper acquaintance with the forms of certain buildings, as a matter of example, and as a matter of example alone, but they ran the risk in doing that of diverting the attention of the student to the outside of the building rather than to the main principles which underlay it. The paper was a very interesting one, and it opened on all sides interesting possibilities for discussion, and he hoped it would bring forward effective results in their daily practice.

Mr. Leonard Stokes said he sympathised with Professor Lethaby in his views, but at the same time he was bound to say that he could not quite follow them out to a logical conclusion, and he really doubted whether Professor Lethaby did himself. The old days were very charming days, and one wished one could live in them, when John the mason started by scratching his head, and called in Bob the carpenter, and consulted whether to put a wooden or a stone roof on the top. He joined issue completely with Professor Lethaby there. He did not believe that sort of thing ever existed. He thought there was some scheme from the very first that the building should have a vaulted roof. He admitted that frequently John the mason made a mistake, and before he got the top on found the building would not carry one of stone, and then he would call in Bob the carpenter and ask him to put on a wooden roof. Bob would do it; but it was not a design—it was a muddle, and there were lots of them all over the country. They made those muddles still; but two blacks did not make a white. He gathered that Professor Lethaby wanted them to go back to the old muddle, when they began to do something they did not know, and ended by doing something they did not want. He thought the architect was made out to be more ignorant than he really was. Professor Lethaby assumed that the architect did not know what a block of stone was or the best timber to use, but they all knew far more than the ordinary bricklayer or carpenter what could be done with the stone or timber. Professor Lethaby wanted them to go and learn from the bricklayer. That was all very well, but the bricklayer was a dunderhead in nine cases out of ten, and made all sorts of silly mistakes. "Bond" was everything to the bricklayer, and they would do anything to get that, and make the whole design subservient to some recognised rule of "bond." He did sympathise with Professor Lethaby when he said that honest work was everything, and that style had been bandied about as a sort of nightmare, and which he had described very excellently as the syndicate style—as to that class of work being honest work, it was not. He did think, however, that the lecturer did the modern architect an injustice, inasmuch as he assumed him to be so horribly ignorant.

Mr. Thomas Blashill said that one of the comforts we had in listening was that one could accept the lecturer's premises without coming to his conclusions. He thought what had been said by Professor Lethaby was most instructive as far as it enlarged the information of what was done in early times, but when he dealt with the Abbey of Westminster he was bound to say he was unable to think that that particular building—French in its design, although English in detail—could have been designed at any time by Robert the mason, or any of those men whose names had been mentioned. It was true they did not know who it was did it, but there might be reason for that. There was not that anxiety in olden time in a man to have it known for all time that he himself had done this. Few people then put their names to that which they did. He might be wrong in suggesting another reason, for no one else had suggested it, and probably, therefore, he was wrong. It was that the class of men who worked upon these buildings with their hands or as designers had not, as a rule, a second name or a distinctive surname. No doubt there were fifty other Johns of Gloucester and Roberts of Beverley—they were names that were useful, and indicated a man on a particular job. But with the great statesmen and warriors of the Middle Ages, such as the Salisburys and Beauchamps and Warwicks, there they had distinctive names; but without that distinctive name, how little would their deeds have been known or remembered or recorded. He believed there was something in it. If these men had had specific names which distinguished them from their fellow-men, it was more likely they would have come down to posterity. He thought they reckoned too much upon what they found in the Renaissance time. Men like Inigo Jones and a few names of that sort posed now and then as joiners and now and then as architects. They thought because in such cases the actual designer was also the worker it must have been so in all time. He did not think it was so. For a long time—a hundred years after the Reformation and after the destruction of the monasteries and owing to the political changes—hardly any building was done at all. No buildings of any consequence were erected, and the upshot of it was that when the time came that new buildings were required they had to go to the workmen who knew all about building and who were most fitted to take up the new duties. He did not think they could argue from that that there had been no special architects in the Middle Ages. He agreed that they should go the workmen for knowledge, for there was too much time spent in school and over books. There were too many details thrust upon them, too many ways of doing a thing. In the olden times there were very few ways known of doing the same thing, but now they were burdened with half-a-dozen ways and were expected to know them all. So far he agreed with Professor Lethaby, but he could not go so far as to agree that a building like Westminster Abbey grew up from a combination, however close, of superior workmen. There must have been one master mind who, from the laying of the very first course of stones, had decided and was able, either by drawings or some other way, to teach the workmen what was to be done from the bottom to the top. They knew that if they saw a plan either of a French thirteenth-century building or an English building, they could tell everything of the important parts of the structure from the very bottom to the top; and they could not suppose that a work of that kind was carried out by a chance combination of able workmen who changed from year to year and did the thing, however cleverly and however well.

Mr. Vacher remarked that a man who designed a beautiful building like Westminster Abbey must have been a highly educated gentleman and have mixed with the highest in the land, and, therefore, he thought they might take it that in those days, like the present, the man who designed these beautiful things was acknowledged to be a clever individual and no common man. He could have been no common mason or carpenter, but a man who could talk and read and a man who knew what was going on and what was wanted.

The Chairman, in closing the discussion, said that all he would say on the question was as to the points Professor Lethaby made about the work being done by the master mason or the master craftsman. If they went to India at the present time they would find the same thing being done. Some few years ago he was in India and went to Gwalia where they were building a tomb for the Maharajah, and he asked to see the drawings. The work was being done by natives and they had no drawings. They showed him a model of a dome and that was the only thing they could show. This was an enormous building and he asked how it was all arranged and the man pointed to his head and said it was there. He supposed, as a matter of fact, the cathedrals in the middle ages were built very much like that. Masters handed down to their sons certain rules and certain details, and when a building so many feet long and so many feet wide had to be built they knew what piers they would have to put in, and the master masons arranged the stones for the other masons to work on. He imagined their cathedrals were erected something like that, but he also thought there must have been some person who made some sort of drawings—some master hand which guided in the planning. That the foundations were put in and bore the building by mere chance he did not think could have been the case. That system might apply in India now, and might have applied in the Middle Ages, but with their present complicated wants in London if a big City building was left in the hands of a master bricklayer or mason or carpenter he hardly thought it would meet with the wishes of the client.



Hogarth's House, Chiswick: From the Garden.

The vote of thanks having been heartily agreed to,

Professor Lethaby, in reply, said he did not say that the building was not done in accordance with a scheme. All he said was that the work was done by the men. These men did become very great men, and became friends of their King and equal to any man in the kingdom. There was a curious assumption that a mason must be a common man, but that was mere assumption, and when he spoke of mediæval art he tried to show that it was possible for a mason not to be a common man—he could graduate from the boy who cleaned out the shop and mixed the mortar and became the equal of any man in the land.

The proceedings then ended.

Visit to Glasgow, and Annual Dinner.

The Glasgow Institute of Architects are making arrangements for a visit of the Royal Institute to Glasgow early in October this year, and during the visit the annual dinner of the Institute will be held. The date fixed for the dinner is Thursday, October 3. The programme of the visit as at present arranged is as follows:—Thursday, October 3, Royal Institute of British Architects' dinner. Friday, October 4, (1) lunch in the Exhibition grounds, given by the Glasgow Institute to the Royal Institute visitors; (2) Visit to the Glasgow University (tea); (3) conversazione given in honour of the Royal Institute by the Corporation of Glasgow. Saturday, October 5, visits to Exhibition, &c. At all Friday's functions the presence of ladies will be welcome.

BAYONNE SLATES AND MARBLE.—Writing from Bayonne recently, Mr. Paul Schoedelin, the British Vice-Consul, remarks that the trade in slates for roofing has considerably increased during the past year. No fewer than from eight to ten small sailing vessels, each carrying about 150 tons, were cleared for London, Plymouth, and ports in the Bristol Channel. It is only profitable to ship by sailing vessels, owing to the time required for loading. The same correspondent states that in several parts of the Pyrenees there are marble quarries, but the exportation is very small owing to the expensive cartage, and more particularly to the want of a powerful crane at Bayonne. The local Chamber of Commerce, however, have decided to buy a crane capable of raising from thirty to forty tons as soon as the new quay is entirely completed. Of late years a large quantity of this marble has been used for public buildings and churches. The new church of St. Eugenie at Biarritz is built entirely of unpolished marble.

HOGARTH'S HOUSE, CHISWICK.

A GOOD deal of attention has recently been drawn to the house, formerly the residence of the great painter, in Hogarth-lane, Chiswick, and steps have been taken to preserve this historical building. In the *Builder* of February 8, 1890, a view of the house, taken from the opposite side of the road, was given. The view given to-day is from the west or garden side. The house has a frontage of about 44 ft., but, as will be seen, has but little depth. The roughness of the walling at the south-west angle seems to indicate that a wing projected southwards. Beyond some panelling there is but little of architectural detail in the interior, but the house and its surroundings are, apart from their historical associations, of a type now too seldom found, and the scheme for its preservation as a museum deserves all encouragement.

THE ARCHITECTURAL ASSOCIATION: VISIT TO GODALMING.

ON Saturday, June 15, the first summer visit of the Architectural Association was paid to some of Mr. E. L. Lutyens' work near Godalming. Members left Waterloo by the 10.5 a.m. train and on arriving at Witley Station, walked to Tigbourne-court, the property of Mr. E. Horne. Mr. Lutyens was unable to be present and Mr. Horne very kindly met the party and himself showed the way over the house and garden.

The house is a striking one, and the arrangement of plan and elevations most original and interesting. Built of the local Bargate stone laid in small courses, the central portion of the house facing the main road, sets back with a shallow court, the wings of which terminate in semi-elliptical screen walls, with very charming doorways on either side. The main entrance is in the centre through an open portico. A great feature in the elevations is bands of roofing tiles laid flat in a kind of herring-bone pattern, which forms a pleasant and effective contrast with the warm yellow of the stone. The roofs have been covered with old tiles. On the garden side a small balcony with some very effective metal work was especially admired. A charming garden has been laid out round the house under the direction of Miss Jekyll and Mr. Lutyens.

Internally the house perhaps hardly comes up to the great promise and originality of the exterior, but, though space does not permit of a detailed description, mention must be made of some very good detail in the drawing-room and in the entrance lobby. Mr. Horne most kindly entertained the party at luncheon in his own house, The Hill, which at one time belonged to Birket Foster.

Munstead Wood, belonging to Miss Jekyll, was next visited. Here the general arrangement, though not quite so striking as at Tigbourne Court, is very pleasing. The same materials are employed—Bargate stone, tile bands, and tile roofs, with oak frames and leaded lights set flush with the wall face—but large oak beams enter into the construction showing in the ceilings, in the porch, and in the first-floor corridor; great effect is obtained by means of these open timbers. The details of doors and fireplaces are very good, the fireplace in the hall especially. The whole house is full of thought and care and is, in fact, almost an ideal example of what can be made of a small house. The garden is too well-known to need description, but is indeed a joy.

Half a mile from Munstead Wood is Orchards, belonging to Mr. W. Chance, which was next visited. The house forms two sides of a courtyard, the south side containing the principal rooms, entered from a porch and doorway in the centre, approached through the courtyard under a large gateway on the north side. The east wing contains the offices and is continued out beyond the north side as stable and coachhouse. The north side consists of coachman's house, the open gateway, with some delightful detail in the roof, and on the right of this is placed a studio, which has a very interesting fireplace, all in red brick and red tile bands carried right up to the ceiling. The remaining western side of the courtyard is an arcade connecting the studio with the western part of the south front. A large garden to the east and south-east is full of interest and has some fascinating work in the walls and terraces.

Externally the same materials have been employed, and internally the house seems well nigh perfect. There are the same general features as at Munstead Wood; a large first-floor corridor on the north side of the south block has here been still further developed and is doubtless the chief factor in the plan. It is certainly successful, and the way the upper part of the porch is made to serve as a

sort of transept to the corridor, gives a character to the house, all its own. Every room has been carefully planned and each one has some quiet and refined bit of thoughtful detail. It is, perhaps, almost correct to say that the chief charm lies in what has been left out, rather than what has been put in; but turn where you will, something fresh and interesting is to be found, though all effect is obtained in the simplest manner. Mr. Lutyens has been fortunate in his clients and he has succeeded to the full in producing a perfect country home.

A peep into Busbridge Church to see Mr. Lutyens' fine bronze chancel screen brought a very successful day to a close.

SITE FOR THE LIVERPOOL CATHEDRAL.

A SPECIAL meeting of the members of the Liverpool Architectural Society was held in the Law Library, on Thursday, June 13, the President, Professor Simpson, in the chair. There was a large attendance of members, and the following Report was adopted :—

"The question of the site for the new cathedral of Liverpool is naturally one of great interest to all architects, and especially to those practising in Liverpool.

The first essential of a cathedral for Liverpool is, that it shall be a cathedral of the diocese, and not of the city only. The most central position for the diocese is that in closest touch with the railway stations. Four sites have been suggested—

(1) St. Peter's Church.
(2) Monument-place.
(3) St. Luke's Church.
(4) St. James's Mount.

These are placed in order of centrality. Of these four sites, Nos. 1 and 3 are not considered, as for various strong reasons they are regarded as inferior to the other two.

The advantages of the Monument-place site are as follows :—Its position and approach are unrivalled in Liverpool. There is an opportunity here for a west front which might be the finest in Europe. The proximity of the site to the great public buildings of Liverpool is of the utmost importance. Its relation to St. George's Hall in view of state processions, civic or otherwise, is of great advantage. It is near to, or in direct communication with, the principal railway stations, and is passed by cars from the pierhead as well as by those from the north and the south of the city. The site is a very high one, the level of the ground at the west end being the same—132 ft. above the datum line—as that of the St. James's Mount site, and any building, therefore, erected thereon would be as visible from the river and the Cheshire side as one placed in the latter position. The foundation is rock. The removal of many of the buildings at present on the site would be of distinct advantage to the welfare of the city. Finally, the orientation would be that customary in English cathedrals and churches.

The disadvantages which have been urged against it are: The cost of the site; the noise from passing cars and traffic generally; and the surroundings. As regards the first, this is undoubtedly very great. The question of noise is not a serious one, owing to the construction necessary for so large a building. St. Paul's, London, is very similarly placed, and the sound of the traffic outside is hardly, if at all, perceptible inside. The surroundings, it is true, are not all that could be desired; but cathedrals ought to be equally accessible for all classes of the community, and the most favoured quarters are not necessarily the best for these buildings.

The advantages of the St. James's Mount site are as follows: The site itself would be much less expensive than that of Monument-place. The situation is a quiet one, and the surroundings are picturesque. Any building erected here would stand out well, and could be seen from the river and Birkenhead.

Its disadvantages, in our opinion, are much greater than its advantages. Its inaccessibility is perhaps its greatest; it is far removed from the main lines and centres of traffic. The site is a very narrow one, and it would be difficult to obtain a good near view of any large building placed upon it. The approach, in an architectural sense, is very bad indeed, and no vistas would be obtainable from any point. The cost of the foundations would be very heavy; either the present mound would have to be removed, or else the foundations would require to be carried down very deep. The suggested suspension bridge over the cemetery would be exceedingly costly and possibly unsightly. If the cathedral is placed as has been suggested, the orientation will be contrary to the immemorial traditions of the English Church. A practical objection to this proposal is that the sunlight striking through the window or windows at the end of the chancel, which would be south, would be a very serious inconvenience to the congregation.

In conclusion, we consider that questions of economy ought not to be allowed to override every other consideration in placing a building which is to stand for all time. A cathedral need not be built in one life time or by one set of donors. We suggest that it would be possible and sufficient for this generation to make the commencement of an entirely worthy work by acquiring a part of what we consider to be the best site (Monument-place), and erecting a portion of the building upon it. This portion might be either the grand west front and nave, taking up the frontage to Monument-place, and extending back to Anson-street, or it might be the chapel and transept portion which would stand on the cheaper land, eastwards, with a temporary west entrance from Anson-street.

In matters of vast importance such as this, the only thing worth aiming for is the best, and it is our experience that, in the long run, this is the most easily obtainable.

Signed on behalf of the Society,
FRED M. SIMPSON, President.
HASTWELL GRAYSON, } Joint
GILBERT FRASER, } Hon. Secretaries."

THE LONDON COUNTY COUNCIL.

THE London County Council reassembled on Tuesday at Spring-gardens after the usual Whitsun recess, the Chairman, Mr. A. M. Torrance, presiding.

Loans.—On the recommendation of the Finance Committee it was agreed to lend Chelsea Borough Council 6,920*l.* for paving works, and 2,000*l.* for street improvement; Hackney Borough Council 50,000*l.* for electric light installation and street lighting; Hammersmith Borough Council 2,510*l.* for paving works; St. Pancras Borough Council 50,000*l.* for electric light installation; Southwark Borough Council 13,980*l.* for electric light installation; Hampstead Borough Council 9,525*l.* for similar purposes; Kensington Borough Council 19,920*l.* for paving works; Stepney Borough Council 380*l.* for electric light installation; Fulham Borough Council 30,000*l.* for erection of baths and washhouses; and Hampstead Borough Council 15,000*l.* for extension of cemetery.

Richmond Hill View.—Mr. Burns, M.P., asked whether, in view of the probable loss to London and the suburbs of the beautiful view from Richmond Hill, the Committee would take into consideration the advisability of co-operating with the Richmond Corporation, the Middlesex County Council, the City Corporation, or the Metropolitan Public Gardens Association in order that the people of London might have secured to them for all time the permanent enjoyment of that view.

Mr. H. Clarke said that Richmond Park itself was saved in the early part of last century by the City Corporation.

Lord Monkswell, Chairman of the Parks Committee, said the Committee and the Council had the question of open spaces quite as much at heart as the City Corporation.

New Open Space.—The Parks Committee reported that they had purchased the garden at Albert-square, Commercial-road, under compulsory powers, for 10,560*l.*, the amount of the umpire's award. The valuations on behalf of the Council ranged from 7,603*l.* to 8,250*l.*, the sealed offer amounting to 8,750*l.*

Improvements.—The following recommendations of the Improvements Committee were agreed to :—

"That the estimate of 1,300*l.* submitted by the Finance Committee be approved, and that, subject to an agreement to be prepared by the solicitor, and to the Council of the Metropolitan Borough of Wandsworth agreeing to contribute one-third of the net cost, the freehold interest in the strip of land needed for widening Garratt-lane to 54 ft. at St. Andrew's Church be acquired by the Council.

That the estimate of 1,000*l.* submitted by the Finance Committee be approved; that the Council's statutory consent be given to the widening of Streatham High-road at the Drew estate, proposed to be undertaken by the Council of the Metropolitan Borough of Wandsworth; and that a contribution be made by the Council on the usual conditions of one-half of the net cost.

That the supplemental estimate of 1,436*l.* 13*s.* 4*d.* submitted by the Finance Committee be approved, and that in connexion with the widening of Russell-street, Drury-lane, now being undertaken by the Council of the City of Westminster, an additional contribution of 1,436*l.* 13*s.* 4*d.* be made by the London County Council.

That the estimate of 375*l.* submitted by the Finance Committee be approved, and that a contribution be made on the usual conditions of one-half of the net cost of the widening of Shaftesbury-avenue at its junction with New Oxford-street, proposed to be undertaken by the Council of the Metropolitan Borough of Holborn."

By-law as to Flash Lights.—The Local Government and Taxation Committee reported as follows :—

"We report, for the information of the Council, that at the Clerkenwell Police-court, on May 22, Messrs. Baker & Co., tobacconists, of Pentonville-road, were summoned by the police for 'unlawfully exhibiting a flash light so as to be visible from Pentonville-road, and to cause danger to the traffic,' contrary to the Council's by-laws. The flash light in question was an advertisement which took the form of a block of letters across the front of the shop, 10 ft. above the footway. Each letter was flashed in turn until the whole sign was illuminated, and then the light suddenly went out, and the process was repeated. The only evidence of 'danger to the traffic' was that given by the police. In the result, the magistrate found that the flash light was a source of danger, and imposed a fine of 40*s.* This is, we believe, the first case in which proceedings have been taken under the Council's by-law as to flash lights, and it is of interest, in view of the fears which were entertained that the words 'to cause danger to the traffic,' which were added at the instance of the Home Secretary, would render the by-law inoperative."

Common Lodging-houses.—The Public Health Committee submitted a Report recommending :—

"That the Parliamentary Committee be instructed to seek legislation in the next Session of Parliament to provide—

(*a*) That no person shall keep a common lodging-house in London without obtaining annually a licence from the Council.

(*b*) That, for the purpose of making and amending the regulations or by-laws within the County of London from time to time, the provisions of the Public Health Act, 1875 (Section 80), be substituted for those of the Public Health Act, 1848 (Section 66), mentioned in Section 9 of the Common Lodging Houses Act, 1851, and that words be added to enable the Council to make by-laws for the inspection and enforcing of proper drainage in common lodging-houses.

(*c*) That Section 3 of the Common Lodging Houses Act, 1853, be amended so that, when a registered keeper dies, his widow or other relation, or person acting in the care or management of the house after his death, shall, as a condition of being allowed to keep the house for four weeks as in the section provided, give immediate notice of such death to the Council.

(*d*) That the Council shall have the like powers as are conferred by the Public Health (London) Act, 1891, upon sanitary authorities for examining as to the existence in a common lodging-house of any nuisance, and for obtaining closing orders or otherwise abating any nuisance which may be found to exist therein.

(*e*) That all penalties imposed shall, notwithstanding any provision contained to the contrary in the Act 2 and 3 Vict., cap. 71, or in any other Act or Acts, be paid to the Council."

The recommendations were agreed to.

Theatres, &c.—On the recommendation of the Theatres and Music Halls Committee the following applications were agreed to :—

Seating on ground floor of the Grand Hall, Clapham Junction (Mr. E. A. E. Woodrow).

Plan in regard to the Great Eastern Hotel (Mr. T. Holloway).

Imperial Hall, Dulwich (Mr. J. W. Brooker).

Plans in regard to the entertainment hall in Picturesque England at the London Exhibitions, Earl's Court (Mr. A. O. Collard).

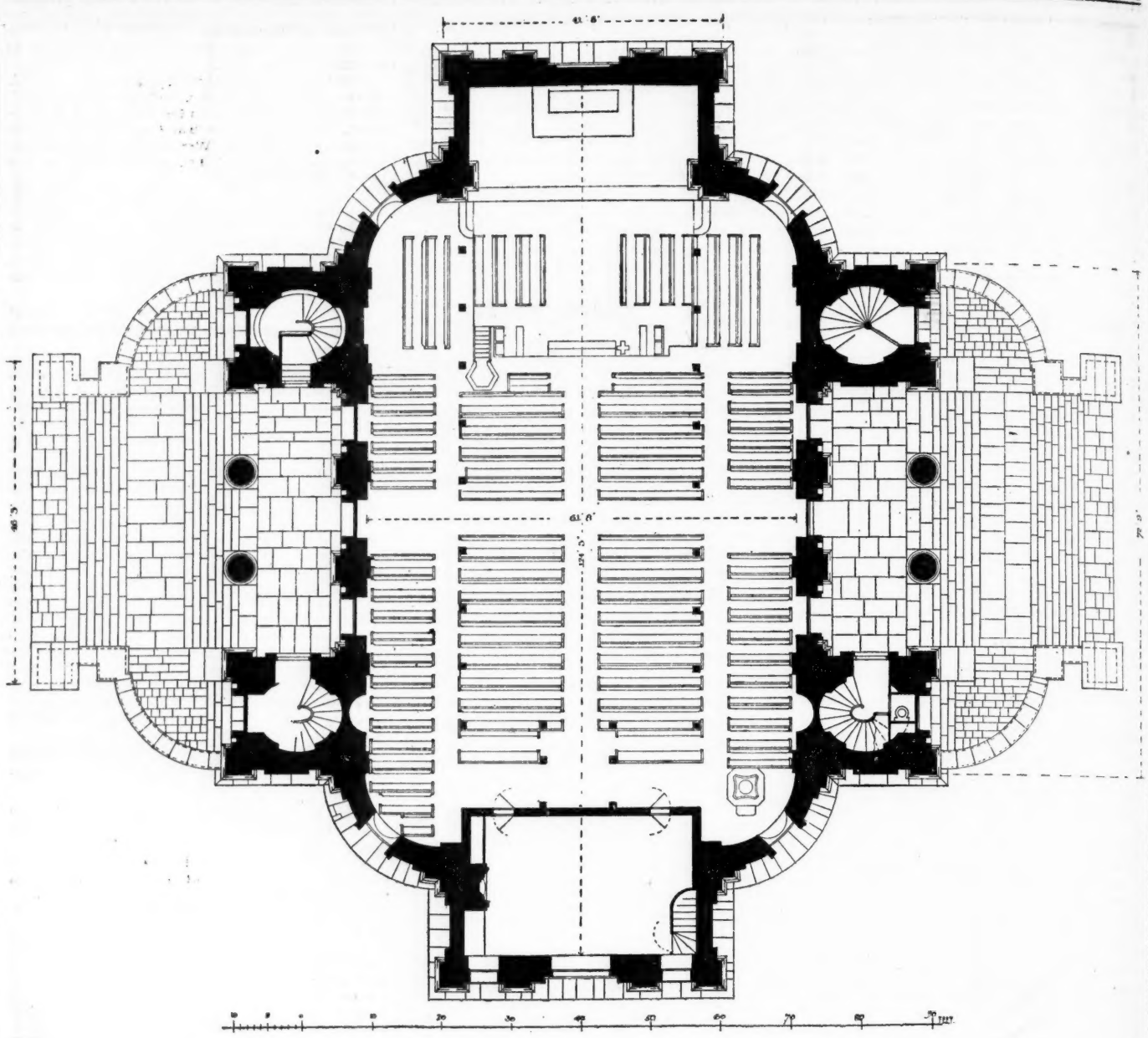
Proposed extension of the East London Technical College at the People's Palace, Mile End-road, E. (Mr. C. Reilly).

Proposed addition to the meter-room in Sadler's Wells Theatre, Rosebery-avenue (Mr. Andrew).

Plans submitted by Messrs. Fladgate & Co. in regard to the Savoy Theatre, Strand.

Greenwich Tunnel Works.—The Bridges Committee reported as follows :—

"We have to inform the Council that on the 26th ult. the shield at Greenwich tunnel reached the Greenwich shaft, and an opening was made



Plan of St. John's Church, Westminster. Measured and Drawn by Mr. A. Wyatt Papworth.

to allow a passage from the tunnel to the shaft, and by the end of the month the junction was made perfectly secure. The actual tunnelling work is now complete, save for the special ring at the junction with the inside plates of the Greenwich shaft. The rate of progress from the commencement of the work, including time lost for holidays, has been 5 ft. 6 in. per day, or 33 ft. per week, for a period of thirty-six weeks. It is very satisfactory to have to report that the work has been carried on with very few accidents, and there were only three cases of compressed air sickness of sufficient gravity to deserve compensation from the Council."

The Supply of Electricity in Bulk.—The Highways Committee recommended that the Council should instruct the Parliamentary Committee to prepare the draft of a Bill, on the lines of the suggested clause agreed to at the recent conference of local bodies, relative to the purchase by local authorities in combination with each other, or by the London County Council, of undertakings for the supply within the county of London of electricity in bulk; and that such Bill should be submitted in draft for the consideration of the Corporation of the City of London and the respective Councils of the City of Westminster and of the several metropolitan boroughs.

This was adopted.

Having transacted other business, the Council adjourned.

ELECTRIC LIGHT EXTENSION, BECKENHAM.—An inquiry was held at the Beckenham Council Offices recently by Mr. M. K. North, A.M.Inst.C.E., one of the Local Government Board Inspectors, into the application of the Beckenham Council to borrow 20,000*l.* for the extension of the electric light at Beckenham, 780*l.* for purposes of street improvement, and 275*l.* for the public baths. Mr. Reginald P. Wilson, consulting electrical engineer, presented the details of the proposed extension.

Illustrations.

PROPOSED HIGH ALTAR, REREDOS, AND BALDACCHINO, ST. ANNE'S CATHEDRAL, LEEDS.

THE reredos, of which we give an illustration, is divided into niches with richly carved canopies over them. In the centre is the throne for exposition and benediction, approached by a staircase from the ambulatory. Above the throne is a panel with the coronation of the Virgin carved in low relief and decorated. Over the whole is a lofty baldacchino supported on two columns.

The altar itself is to be executed in purple Breccia marble, with a frame of white alabaster inlaid with mother of pearl; the cross in the centre inlaid with porphyry and lapis lazuli.

The tabernacle is to be in white alabaster with beaten copper door.

The super-altar is to have Bianca, Nero, and Connemara green marbles, and the whole will be on a plinth of black marble.

The reredos is to be executed in first quality pine, with canopies and carved posterns in very fine kauri pine. The baldacchino is to be executed in the same material, but the columns to have iron stanchions cased in kauri pine. The whole of the woodwork will be painted and decorated.

ST. JOHN'S CHURCH, WESTMINSTER.

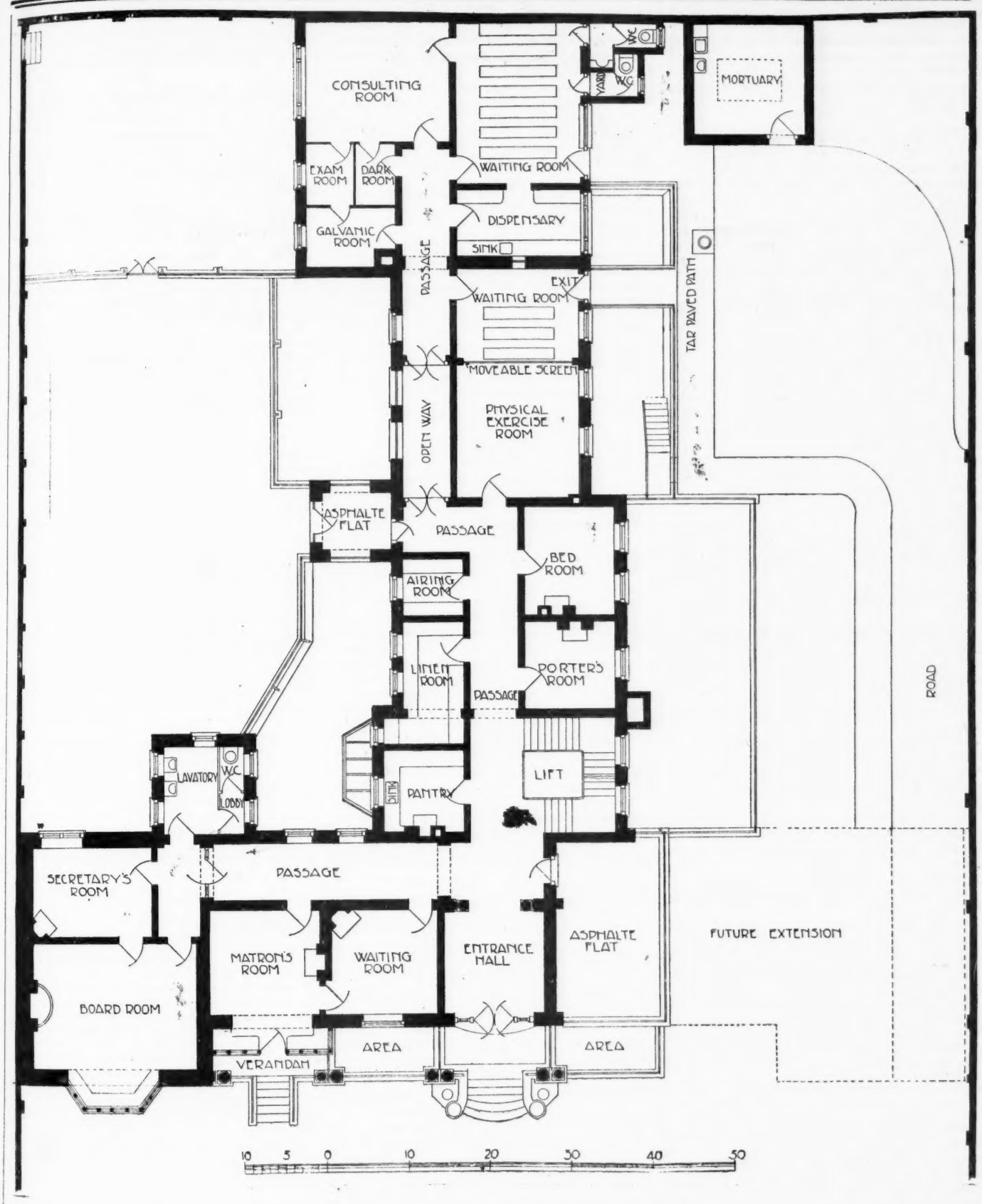
WE publish an elevation and section of Archer's celebrated church of St. John at Westminster, the plan of which is also subjoined. The drawings are by Mr. A. Wyatt Papworth, and form a portion of a set for which he was awarded a medal of merit and five guineas in the last silver medal competition for measured drawings at the Institute of Architects.

The church stands in the centre of the site proposed to be dealt with under a Westminster improvement scheme, and should, from its position, form almost the central and governing point of any plan for the laying out of that portion of Westminster. On the other hand, one never knows what destructive measures may be carried out in these days in connexion with so-called improvement schemes, and therefore we may as well take an opportunity of putting a record of the church in our pages in case of the worst.

The history of the fabric is noteworthy. It is the second of the "fifty churches" erected by the Commissioners to whom Sir John Vanbrugh (*obiit* 1726) was surveyor. He entrusted the design to his pupil, Thomas Archer. The church was built in 1721-8 (see the Act 1 Geo. II., 2nd Session, c. 15) for a parish which had been taken out of St. Margaret's, at a cost of 40,000*l.* (*teste* Allen's "London," vol. iv., 1828). In the "Crowle" Pennant are two prints, cut down for mounting, but lettered as follows:—

"Mr. Archer's design of St. John's Church in Westminster, as it was resolved upon by the Commissioners. The alterations made since to this design [both to the steps and pinnacles] were done without the consent or knowledge of Mr. Archer."

Elmes records that Archer had in mind to build also a central tower with spire; but the plan and structure of the building present no foundation for a feature of that kind, unless we may suppose that Archer intended to supplement the four towers with a timber spire or flêche rising from the roof. The two prints when contrasted with the existing church show that the departure from Archer's own designs



Hospital for Epilepsy and Paralysis, Maida Vale. Ground Plan. [See next page.

mainly affected the treatment of the broken pediments above the porticos; the four towers, which are now rounded on plan; and the stylobate and steps. A story has gained currency that the four towers were added through necessity to give stability to the fabric, as the work of its building proceeded, and did not form part of the original design. But it is quite clear that they did. In respect of the altered towers, Archer's design shows them as square on plan; his arrangement of columns and entablature for the towers has been modified, whilst instead of the present bell-shaped leaden cupolas capped with cones he has at their four angles turrets with pilasters connected by a balustrade, and each of them is terminated with an obelisk finial. The model was deposited in the collection stored over Henry V.'s monument in Westminster Abbey. The structure was tied together with iron bars passed through the walls and columns both internally and externally. The latter bars have been retained.

Allen cites a painting, preserved in the vestry, of the fabric as it appeared after the interior had been destroyed by a fire that broke out on September 26, 1742. The flames consumed the roof, together with the grouped columns at the angles. The House of Commons voted 4,000*l.* for a reparation of the building; the grouped columns, however, were not replaced. William Inwood effected some alterations and re-arrangements; he removed the columns for supporting the ceiling, and increased the seating capacity in the galleries, added in 1758, and on the floor, for from 1,200 to 1,800 persons. A partial restoration, with re-decoration of the interior, was carried out subsequently by P. C. Hardwick and Sir Arthur Blomfield. Then, in 1885, the interior fittings were re-modelled and the old pews taken away, at a cost of about 800*l.*, under Butterfield's directions and superintendence.

About ninety years ago, Mr. T. Green, of Millbank-row, gave some old painted glass, brought from Normandy, for the side lights of the east window; in 1827 a copy of the picture of Christ carrying the Cross, variously attributed to Moralez or Ribalta, over the altar-piece in the chapel of Magdalen College, Oxford, was presented to the church. In 1840 Hill rebuilt the organ (1727); the font (April, 1847) was sculptured by John Thomas, after a design by Barry.

HOUSE, "THE TOWERS," DEVONSHIRE.

THIS house is built of red brick and tiles; the half-timbering is of oak unpainted, portions of this being filled in with herring-bone brick-

work. The stone dressing is of Portland stone. Leaded lights are used throughout in the windows.

Internally the decoration is of a simple character. The woodwork is pine, stained a very dark green.

Messrs. C. R. Dibdin and H. F. Waring are joint architects.

HOSPITAL FOR EPILEPSY AND PARALYSIS, MAIDA VALE.

THE new building which is in course of erection in Maida Vale is intended to take the place of the house now occupied by the Charity in Portland-terrace, Regent's Park. Ultimately it is intended to provide accommodation for some fifty-four patients, but the scheme at present in hand provides only for thirty-five, and for lack of funds the Committee are only able at present to enter into a contract for the completion of the building up to the first floor level.

The whole of the kitchen offices and stores are in the basement. The ground floor contains the administrative offices and the out-patient department. The first and second floor will each contain a ward for seven beds, one for eight beds, and four wards of one bed each, together with ward kitchen, bathroom, and the usual sundry offices, a dayroom for epileptic patients, and a wide balcony on to which patients in bed can be wheeled. On the top floor are the quarters for nurses and servants, together with the sitting-room for the nurses.

The architects are Messrs. Young & Hall; the contractors Messrs. Prestige & Co.; and Mr. Gathergood acted as clerk of works.

CASSLAND-ROAD HIGHER GRADE SCHOOL.

THIS school is being erected by the School Board for London, for the purpose of higher grade teaching, on a site adjoining Hackney Common, and will provide accommodation for 816 children.

Halls and classrooms occupy the ground and first floors.

A drawing classroom with modelling-room, lecture-room, physical laboratory, needlework-rooms, chemical laboratory, gymnasium with dressing-rooms attached, are provided on the second floor.

The school is to be heated and ventilated on the plenum system by Messrs. Stott, of Oldham, the towers being used as extract shafts.

A manual training-room is provided adjoining the school and will accommodate forty boys.

The building is designed in a free treatment of French Renaissance, the walls being faced with red brick relieved by buff terra cotta dressings, and the roofs covered with Broseley tiles.

Mr. Thos. J. Bailey, the Architect to the Board, has designed the building, and it is being carried out under his superintendence by Messrs. Lawrance & Sons, of City-road, E.C., at a cost of 30,594*l.*

COMPETITIONS.

PUBLIC LIBRARY, KEIGHLEY.—As we have already announced, Mr. Leonard Stokes, the assessor in this competition, awarded the first premium to Messrs. McKewan & Swan, 3, Newhall-street, Birmingham. The second premiated design was by Mr. James S. Gibson, 4, Gray's Inn-square, London, W.C., and the third by Mr. Thomas Davison, 28, Great Ormond-street, London, W.C.

SHOPS AND HOUSES, DARLINGTON.—In a competition for a row of shops and houses, Park-gate, Darlington, the design by Mr. F. Turner Waddington, Beech-avenue, Blackpool, has been placed first. The second premiated design was by Mr. J. H. Holmes, West End Buildings, Darlington.

BATHS FOR OLD TRAFFORD. — A special meeting of the Stretford District Council was held on the 11th inst. for the purpose of selecting plans for the new baths at Old Trafford. The estimated cost of the baths is about 12,500*l.*, and they will be erected at the junction of Northumberland-road and Hullard Hall-lane. In response to the advertisement for competitive plans, twenty-one sets were sent in, and it was found necessary to appoint an assessor to make the awards, which were confirmed by the Council as follows:—Mr. Charles Thos. Taylor, Clegg-street, Oldham, and Mr. Arthur Warburton, of Warrington, thirty guineas; Mr. Arthur R. Groom, architect, Manchester, twenty guineas; and Messrs. Farrar & Woodhouse, architects, Manchester, ten guineas. On the motion of Mr. Talbot (Chairman of the Baths Committee), seconded by Mr. Walthew, it was resolved to erect the baths from plans submitted by Messrs. Farrar & Woodhouse.

BOARD SCHOOL, LOUGHBOROUGH.—At the last monthly meeting of the Loughborough School Board, the clerk laid before the committee the report of Mr. Evans on the plans sent in for the proposed new Board school, cookery school, and pupil teachers' centre, from which it appeared that Mr. Evans had awarded the first place to Alpha No. 1, and the second place to Alpha No. 2. The clerk reported that both these plans were sent in by Messrs. Barrowcliff & Allcock. It was thereupon resolved to award the premium offered of 25*l.* to Messrs. Barrowcliff & Allcock. The further consideration of the plans was adjourned, and it was resolved, with the consent of the architects competing, to invite the ratepayers to inspect the plans, and to place the same on view in the board-room.

ARCHITECTURAL SOCIETIES.

ROYAL INSTITUTE OF ARCHITECTS OF IRELAND.—A deputation from the Council of the Royal Institute of the Architects of Ireland waited on the Local Government Board on the 14th inst. The deputation consisted of Sir Thomas Drew, J. Rawson Carroll, R. Caulfield Orpen, Charles A. Owen, and W. Kaye Parry, Hon. Secretary. The object of the deputation was to bring under the notice of the Local Government Board the appointments of unqualified men as architects by the Urban and Rural District Councils in connexion with the expenditure of public funds. The deputation was courteously received by the Vice-President, Sir Henry Robinson, K.C.B., and other members of the Board. Sir Thomas Drew stated shortly the position occupied by the Royal Institute in connexion with the profession which it represented. Mr. W. Kaye Parry then read a statement embodying the views of the Council, and suggested that the Local Government Board should endeavour to secure increased powers to make regulations regarding the qualifications of architects employed by Urban and Rural District Councils. The Chairman thanked the deputation for having brought this matter under the notice of the Board, and added that the suggestions of the Council would be very carefully considered. The deputation then withdrew.

APPLICATIONS UNDER THE 1894 BUILDING ACT.

AT the meeting of the London County Council on Tuesday the following applications were considered. Those applications to which consent has been given are granted on certain conditions. Names of applicants are given in brackets. Buildings are new erections unless otherwise stated:—

Lines of Frontage and Projections.

Kensington, South.†—One-story shops at Nos. 28, 30, and 32, Harrington-road, Kensington, at the corner of Queensberry-place (Mr. F. E. Williams for Lord Ashburton).—Consent.

Hampstead.—Residential flats, with projecting one-story shops and bay-windows, on the west side of Finchley-road and east side of Fortune Green-lane, Hampstead (Mr. G. H. Green for Mr. W. H. Pearce).—Consent.

Hammersmith.†—A theatre building on the north side of Hammersmith-road, Hammersmith, at the corner of Rowan-road (Mr. W. G. R. Sprague for Mr. J. B. Mulholland).—Consent.

Camberwell, North.—A one-story addition on part of the forecourt of No. 243, Camberwell-road, Camberwell (Mr. W. V. Goad for the executors of the late Mr. C. Goad).—Consent.

Chelsea.—That the application of Mr. J. Ross for an extension of the periods within which the erection of buildings upon plots Nos. 1 to 4, Cheyne-walk, Chelsea, to abut upon Beaufort-street, was required to be commenced and completed, be granted.—Agreed.

Marylebone, West.†—A porch at the entrance to No. 33A, Montagu-square, St. Marylebone, to abut upon Upper Montague-street (Mr. L. Stokes for Mr. J. Roskill).—Consent.

Strand.†—A projecting metal sign at the Peninsular and Oriental Steam Navigation Company's premises on the North side of Northumberland-avenue, Charing-cross (Mr. T. E. Collcutt for the company).—Consent.

Greenwich.—A house on the south side of Manorway, Lee-road, Greenwich (Mr. L. V. Hunt).—Consent.

Dulwich.—A one-story shop on the east side of Crystal Palace-parade, Dulwich, near Anerley-road (Mr. W. Harbrow for Messrs. T. Prime & Sons).—Consent.

Kensington, South.—A wooden oriel window at the ground floor level in front of No. 10, Albert-place, Victoria-road, Kensington (Mr. T. W. Heath for Colonel J. P. Westmoreland).—Consent.

Lewisham.—Two houses on the west side of Shell-road, Lewisham, at the corner of Sandrock-road (Messrs. Hodson & Whitehead for Messrs. Hodson Brothers).—Consent.

Peckham.—One-story shops on the forecourts of Nos. 20, 22, 24, and 26, Atwell-road, Rye-lane, Peckham (Mr. A. E. Mullins for Mr. W. Monks).—Consent.

Rotherhithe.—A gangway to connect, at the second floor level, No. 27, St. Thomas-street, Bermondsey, with the viaduct forming the approach to London Bridge Railway Stations, and spanning Joiner-street (Messrs. De Clermont & Donner).—Consent.

St. George's, Hanover-square—Retention of a one-story office building erected on the forecourt of Victoria Wharf, Buckingham Palace-road, Pimlico (Messrs. Humphreys, Limited).—Consent.

St. Pancras, East.—An addition to No. 86, King's-road, Camden Town, to abut upon Camden-road (Messrs. Taperell & Haase, for Mr. A. Hilger).—Consent.

Wandsworth.—That the application of Messrs. Dale & Gadsdon for an extension of the periods within which the erection of thirteen one-story shops on the east side of Balham High-road, between No. 207 and Elmfield-road, was required to be commenced and completed, be granted.—Agreed.

Woolwich.—That the application of Mr. R. Stewart for an extension of the periods within which the erection of eighteen houses on the north side of Bexley-road, Eltham, eastward of Elderslie-road, was required to be commenced and completed, be granted.—Agreed.

Hampstead. — That the application of Messrs. Boehmer & Gibbs for an extension of the period within which the erection of one-story shops on part of the forecourts of Nos. 1 to 13 inclusive, College-crescent, Finchley-road, Hampstead, was required to be completed, be granted.—Agreed.

Brixton.—The rebuilding of the Russell public-house and No. 114, Brixton-road, Lambeth (Messrs. J. A. J. Woodward & Sons for Mr. A. White).—Refused.

Hammersmith.—Buildings on the site of Nos. 1 to 12, Theresa-terrace, King-street, Hammersmith (Messrs. Boehmer & Gibbs for Messrs. H. & E. Lea).—Refused.

Strand.—An iron and glass hood over the entrance to Nos. 17 and 19, Old Compton-street, Soho (Mr. R. H. Kerr for Mr. C. Brice).—Refused.

Wandsworth.—Two-story houses on the north-west side of North-street, Wandsworth (Mr. H. Bignold for Mr. S. B. Jones).—Refused.

Width of Way.

Bermondsey.—Buildings on the site of Nos. 39 to 42, Bermondsey-square, and No. 58, Long-walk, Bermondsey, at less than the prescribed distance from the centre of Long-walk (Mr. E. Crosse for Messrs. W. Pettitt & Sons).—Consent.

Southwark, West.—A building on the open yard on the north-east side of Mansfield-street, Borough-road, Southwark, at less than the prescribed distance from the centre of the street (Mr. C. H. Shoppee for Messrs. R. Hoe & Co.).—Consent.

Islington, West.—A three-story building, to be inhabited by persons of the working class, on the south side of George-street-mews, Holloway, at less than the prescribed distance from the centre of the street (Mr. W. L. Kellaway for Mr. S. Allen).—Refused.

Woolwich.—A one-story building at Warren-lane Works, High-street, Woolwich, at less than the prescribed distance from the centre of the street (Messrs. Kirk & Randall).—Refused.

Width of Way, Lines of Frontage, and Projections.

Hackney, North.—Buildings, with one-story shops in front, on the west side of High-street, Stoke Newington, and of buildings on the south side of Victoria-road (Messrs. N. S. Joseph, Son, & Smithem, for the Four Per Cent. Industrial Dwellings Company, Limited).—Consent.

Marylebone, East.—The retention of a wood and zinc pent over the entrance to No. 22, Devonshire-place-mews, St. Marylebone (Mr. A. G. Langdon for Messrs. R. Hardy & Son).—Consent.

Woolwich.†—The re-erection of the Duke of York and Fortune of War public-houses, and Nos. 16 to 38 (even numbers only, inclusive), New-road, Woolwich (Messrs. Church, Quick & Whincop for Mr. B. H. de Bertodano, Mr. A. Fort and Mr. T. Sturgeon).—Refused.

Fulham.—An open shed and a coal store at the rear of No. 14, Fulham Palace-road, Fulham, to abut upon Waldo-avenue (Mr. H. Bignold for Mr. F. Jenkins).—Refused.

Norwood.—A one-story addition at the rear of No. 6, Gloucester-street, Norwood, to abut upon Beadman-street (Mr. H. Bignold for Mr. J. F. Wheeler).—Refused

Width of Way and Space at Rear.

Southwark, West.—A block of dwelling-houses, intended to be inhabited by persons of the working-class, on the site of Nos. 32, 34, 36, 38, and 40, Holland-street, Southwark (Mr. E. Hoole for Miss Octavia Hill).—Consent.

Woolwich.—Four houses on the west side of Barnfield-road, Plumstead (Mr. H. Roe for Mr. W. Sutch).—Refused.

Projections and Construction of Gangways.

Bow and Bromley.—That the application of Mr. Max Clarke for an extension of the periods within which the erection of four iron gangways across Fawe-street, Poplar, to connect warehouses on the opposite sides of that street, was required to be commenced and completed, be granted.—Agreed.

Poplar.—An overhead transporter, to be constructed of steel and wood, across East Ferry-road, Poplar, near its junction with Glengall-road, with an iron roof over such transporter (the Millwall Dock Company).—Consent.

Lines of Frontage and Construction of Building.

Hackney, Central.—The retention of a wood and glass show-case on the forecourt of No. 54, Mare-street, Hackney (Mr. T. Fisher).—Consent.

Width of Way and Construction of Gangway.

Southwark, West.—A warehouse building on the west side of Valentine-place, Southwark, at less than the prescribed distance from the centre of Pontypool-place, and of a gangway to connect such building with a warehouse building on the south side of Pontypool-place (Messrs. J. Hoare & Son for Messrs. J. Pascall, Limited).—Refused.

Formation of Streets.

St. Pancras, North.†—That an order be issued to Messrs. Boehmer & Gibbs refusing to sanction the formation or laying-out of streets for carriage traffic on the Clevedon estate, Highgate-road, St. Pancras (for Mr. A. W. Armstrong).—Agreed.

Hackney, South.—That an order be issued to Messrs. Gordon & Gunton refusing to sanction the widening and adaptation for carriage traffic of a footway leading out of the west side of Gomer-terrace, Upper Clapton-road, Hackney, and known as Cassimer-terrace (for Messrs. Abbott).—Agreed.

Deviations from Certified Plans.

St. George, Hanover-square.—Certain deviations from the plan certified by the District Surveyor so far as relates to the proposed erection of a stable building, with a warehouse over, on a site at the rear of Nos. 47 and 48, Wilton-road, Pimlico (Messrs. J. Bartholomew & Co. for Mr. C. T. Cowley).—Refused.

Artisans' Dwellings.

Hackney, North.—Dwelling-houses, to be inhabited by persons of the working class, and proposed to be erected, not abutting upon a street, on a site on the west side of High-street, Stoke Newington, at the corner of Victoria-road (Messrs. N. S. Joseph, Son, & Smithem for the Four Per Cent. Industrial Dwellings Company, Limited)—Consent.

Hackney, North.—Dwelling-houses, to be inhabited by persons of the working class, and proposed to be erected, not abutting upon a street, on a site at the rear of houses on the south side of an unauthorised street, known as Gibson's-buildings, Northwold-road, Stoke Newington (Mr. R. L. Cole for the Metropolitan Association for Improving the Dwellings of the Industrial Classes).—Refused.

Height of Buildings.

Whitechapel.—Two buildings of the warehouse class on the north-west side of Tripe-street, Middlesex-street (formerly Sandy's-row), Whitechapel, to exceed in height the width of Tripe-street (Messrs. D. Cubitt Nichols, Sons, & Chuter for Messrs. G. H. & A. Bywaters).—Consent.

Battersea.—Three warehouses, to exceed 80 ft. in height, at Messrs. Hampton & Sons' premises, Queen's-road, Battersea (Messrs. Hesketh & Stokes for Mr. G. Hampton).—Refused.

Buildings for the Supply of Electricity.

Woolwich.—An addition to the generating station and works at Globe-lane, High-street, Woolwich (Messrs. Church, Quick, & Whincop for the Woolwich District Electric Light Company, Limited).—Consent.

Means of Escape from Top of High Buildings.

Holborn.—Means of escape in case of fire on the fifth and sixth floors of the Kingsley Hotel, Hart-street, Bloomsbury, for the persons dwelling or employed therein (Mr. C. F. Doll for Mr. J. Truslove).—Consent.

The recommendations marked † are contrary to the views of the Local Authorities.

THE STUDENT'S COLUMN.—Our Student's Column article, "Sanitary Fittings and Plumbing," is unavoidably held over until next week.

Correspondence.

To the Editor of THE BUILDER.

THE SPECIAL TELEPHONE DIRECTORY.

SIR,—In November, 1898, we paid a deposit to the owners of the Special Telephone Directory in respect of advertisements. Have any of your readers paid deposits about the same time? If so, we shall be glad to hear from them.

ROBERTS, ADLARD, & CO.

25, Bermondsey-wall, S.E.

REVOLVING ENTRANCE DOORS.

SIR,—Can you or any of your readers kindly oblige us with the address of the makers (or their London agents) of revolving entrance doors to prevent draught. We believe they are an American patent, and are in use at one or two of the London hotels.

ENTRANCE DOORS.

BOOKS RECEIVED.

OFFICE MANAGEMENT: A MANUAL FOR ARCHITECTS AND ENGINEERS. By W. Kaye Parry. (E. & F. N. Spon.)

A PRICE-BOOK FOR ARCHITECTS AND ENGINEERS. By T. E. Coleman, F.S.I. (E. & F. N. Spon.)

WEIGHTS AND MEASUREMENTS OF SHEET LEAD. By James Alexander. (E. & F. N. Spon.)

THE MASTABA OF PTAHHETEP AND AKHETHETEP AT SAQQAREH. Ninth Memoir of the Archæological Survey of Egypt. By N. de G. Davies, M.A. (Kegan Paul, Trench, Trübner & Co.)

A HISTORY OF DESIGN IN MURAL PAINTING. By N. H. J. Westlake, F.S.A. Part I. (J. Parker.)

GENERAL BUILDING NEWS.

ST. LUKE THE EVANGELIST'S, WALTON, LIVERPOOL.—The new Church of St. Luke the Evangelist, Goodison-road, Walton, was dedicated on the 13th inst. The plan of the church consists of nave, north and south aisles, north and south transepts, chancel, organ chamber, and choir and clergy vestries. The chancel aisle is not built at present. There are two entrances from Goodison-road, one from the north-west and the other from the south, leading into a narthex, separated from the nave by a glazed screen. The font is at the west end of the nave adjoining the narthex screen. The total length of the church is 123 ft. 2½ in., and the total width 52 ft. 6 in. across nave and aisle and 60 ft. across transepts. The church is built of local brick with red stone jambs and mullions to windows, with Ruabon brick plinth quoins and bands, and terra cotta finials, &c. The columns to the nave arcade are of Runcorn stone. The whole of the constructional woodwork is of pitch pine. The choir pews, reading-desk, and altar table are of oak. The reredos is only a part of what is to be in the future, the central panel being a gift. The church throughout is seated with chairs, and will accommodate nearly 600 worshippers. The flooring of the church is of pitch pine wood block, with the aisles or passages of oak. The chancel and sacrarium are laid with mosaic pavement. The church has been erected by Mr. S. Webster, builder and contractor, of Bootle; the heating by Messrs. J. R. Cooper & Sons; the mosaic pavement in chancel by Rust's Vitreous Mosaic Co., London; and the choir seats, &c., by Jones & Willis. The clerk of works was Mr. Gilbert Morris. The architect was Mr. J. Francis Doyle.

RE-OPENING OF CHANCEL, ST. PETER'S CHURCH, DERBY.—The chancel of this church was re-opened recently after renovation and decoration. The roof has been repaired under the direction of the architect, Mr. W. Hawley Lloyd, all the decayed boarding and timber having been renewed. The large timbers, which, in the main, were in sound condition, have been repaired where requisite, and the roof has been boarded throughout with oak. The old lead has been recast by Messrs. Cox & Co., and relaid. Defects in the vestry and eastern parapet have been repaired. A tile pavement and Hopton-Wood stone steps have been laid by Mr. W. E. Lomas. In the course of the preparation for this work, two black Derbyshire marble slabs with Latin inscriptions were discovered. These were buried beneath the old pavement of the church, and have now been relaid at the east ends of the north and south aisles. The decoration of the church has been carried out by Mr. J. H. Ottewell, from designs by the architect.

RESTORATION OF HADDON CHURCH, NORTHAMPTONSHIRE.—This church was recently reopened after restoration. Mr. J. C. Traylen, of Stamford, was the architect, and Mr. F. G. Halliday, of Stamford, was the contractor. A new north aisle roof has been erected, with transept roof and nave roof; the interior cleaned down, and the tower restored and one bell recast. All the woodwork was done with English oak, and in the rebuilding of the nave roof the old characteristics are being preserved. The windows were reglazed. A stained glass window, in memory of Lieut. Trewer, has been inserted. The design, which is by Kemp, represents the Crucifixion and St. George and St. Michael. After the walls had been cleaned and several layers of whitewashing removed, a number of frescoes were discovered on the east walls, but unfortunately the treatment to which they had been subjected has made them indecipherable.

NEW CHURCH, PLYMOUTH.—On Wednesday, the 12th inst., the foundation stone was laid of St. Simon's Parish Hall, Plymouth, which will be temporarily used for services while the new Church of St. Simon (to seat 1,000) is being erected. The contractor is Mr. Ambrose Andrews, of Plymouth, and the architect Mr. Harbottle Reed, of Exeter, who has also prepared the plans for the new church, the foundation stone of which will shortly be laid.

WESLEYAN CHURCH, WEST BRIDGFORD, NOTTINGHAMSHIRE.—The foundation-stones were laid on the 6th inst. of a new Wesleyan church on Trent Boulevard, West Bridgford. The building will be 58 ft. long by 31 ft. wide, and is to accommodate 300 worshippers. At the rear a church parlour is being erected, the measurement of which will be 31 ft. by 17 ft., with two vestries, over which there are to be two classrooms. Every provision has been made for a heating-chamber, kitchen accommodation, and other offices. Access to these at the back of the structure will be obtained from the church by means of a specially-arranged hall at the side. The roof of the church will be partially open, and the whole of the internal finishings, including the pews, are to be of Canadian pine. At the main entrance to the church will be a porch, 21 ft. by 9 ft. The main front is faced with Coxbench stone, and dressings of white Hollington stone, while a special feature will be that of a large tracery window. At the angles of the building it has been arranged to have stone ornamental buttresses, terminating with stone pinnacles. The church, it is expected, will cost 2,000*l.* Mr. A. E. Lambert is the architect, and Mr. T. Barlow the builder.

WESLEYAN SCHOOL CHAPEL, BASFORD, STAFFORDSHIRE.—The foundation-stones of the new Wesleyan chapel, Basford, were laid recently. It is proposed to erect ultimately buildings to cost about 7,000*l.*, but at present the schools only will be proceeded with, at a cost of about 2,500*l.* Pending the erection of the church, the schools will also serve the purpose of a chapel, the seating accommodation being for about 300. The architects, whose designs were selected in open competition, are Messrs. Ford & Slater, of Burslem, and the builder is Mr. J. H. Broadhurst, of Burslem. The school is planned in the form of a cross, and comprises an assembly-room, four classrooms, entrance porches, heating vault, &c. The assembly-room is 52 ft. by 33 ft. Externally, the building will be cased with red-facing bricks, and have moulded terra-cotta dressings.

METHODIST FREE CHURCH, NEWCASTLE.—The foundation stones of a new church for the Methodist Free Church communion were laid recently, in connexion with the Gloucester-street Circuit, at the corner of Simonside-terrace and Heaton-road, Heaton, Newcastle. The church is cruciform, with two transepts and a nave. There will be two entrances in Heaton-road, into a vestibule giving access to the body of the church. The galleries will be entered from separate doors, one from Simonside-terrace and the other at the side from Heaton-road. The church is designed in the Late Gothic style. The walls of the buildings will be of snecked rubble stonework, with dressed and rubbed mouldings. The internal fittings, including gallery fronts, rostrum, seats, &c., will be of pitch pine, and the roof will be an open timber one. The galleries will occupy each arm of the cross shape of the church, that at the back being for the accommodation of the choir and organ. At the corner of the building at Heaton-road and Simonside-terrace, will rise to a height of 63 ft. an octagonal tower and spire, with buttresses and pierced tracery. The church will provide accommodation for 700 persons. The Sunday schools are arranged with the whole of the classrooms on the ground floor, with separate entrances to the different sections, including boys' and girls' rooms and infants'-room. On the first floor is the school hall. The buildings will be lighted throughout by electricity, and will be heated by hot water on the low pressure system. The architects for the buildings are Messrs. Hope & Maxwell, Newcastle, and the builder is Mr. Alexander Bruce.

WESLEYAN CHURCH, RADSTOCK, SOMERSETSHIRE.—On the 12th inst., the memorial stones were laid of a new Wesleyan church at Radstock. The site of the new church is close to the two railway stations, the main frontage facing Fortescue-road. The church itself will consist of a nave and aisles on either side. The chancel is 59 ft. 9 in. long by 37 ft. 3 in. wide, with a choir at the back raised above the nave, and in front of which will be placed the rostrum. There will be a gallery all round supported by iron columns, and approached by three staircases—two on either side of the church at the front and one from the back. There are six entrances to the church, all of which command the ground floor. Three of these entrances lead to the gallery. The chapel roof will be in one span, and will rise to a height of 30 ft. 6 in. to the ceiling, and 36 ft. to the ridge of the roof.

The building will be lighted by a four-light traceried window in the front gable over the entrance, and by ten two-light tracery windows of somewhat similar design at the sides above the gallery, and also eight two-light square-headed windows in the aisles under the gallery, all of which are to be filled in with cathedral glass. The chancel will be divided from the nave by a semi-circular moulded arch resting on stone columns, with moulded caps and bases. It will be lighted from a three-light traceried window. The school is entered from Church-street by a door at the base of a small tower and slate spirette. Its dimensions are 48 ft. long by 27 ft. wide. There is a second entrance from the side road which leads to the school, school gallery, classrooms, and the church. There will be five classrooms, four on the ground-floor and one upstairs, a ladies' classroom, 20 ft. by 14 ft., and a men's classroom upstairs, 39 ft. by 13 ft., with a platform at one end. Sittings for 536 persons will be provided, 280 of whom will occupy the body of the church and 256 the gallery. The schoolroom will accommodate 269 children apart from the end gallery, which will hold eighty-four more, making a total of 353. The floors will be of wood except in the entrance, where tiles will be laid. The walls throughout are to be of stone obtained from a local quarry. The dressings will be of Bath stone. The roofs are to be covered with Bangor slates and finished with red ridge tiles. Mr. Robert Curwen, London, is the architect, and Mr. Tom Keeling, of Timsbury, near Bath, is the builder; while Mr. S. G. Gregory, Radstock, is acting as clerk of works.

CHURCH, ORDSALL, RETFORD.—It is proposed to erect a new church for the parish of Ordsall, in the borough of Retford. Mr. Hodgson Fowler, architect, had been entrusted with the work of preparing plans and estimates for the new church. Instead of starting with the nave, as at first suggested, it is now determined to build the side chapel and organ chamber and a temporary nave.

METHODIST FREE CHURCH, EASTVILLE PARK, BRISTOL.—Memorial stones for the new Eastville Park Methodist Free Church were laid on the 13th inst. The building is to be in the Gothic style, with turrets on each front corner. The main entrance will be by a large central door, and the size of the interior is 60 ft. by 40 ft. In the gallery running round there will be an organ loft and choir. Pennant stone is being employed in the building, with free-stone dressings, and the accommodation will include a preacher's vestry and a choir vestry. At the rear are a lecture room and two classrooms. The architect is Mr. H. M. Bennett, of Bristol, and the builder Mr. E. Clark, of Fishponds.

WESLEYAN CHURCH, SUDBURY.—The foundation stones of a Wesleyan Methodist Church were laid at Sudbury recently. At present the scheme is confined to the erection of a church only, but eventually it is projected to add a church Sunday-school, a church parlour, and vestries, at a further cost of 1,500*l*. The architects are Messrs. Gordon & Gunton, of London. The new chapel will be situated at the junction of North-street and Melford-road, and will be built with flint walling and Bath stone dressings. The plan of the building at present contemplated consists of a church, with nave, transepts, chancel, organ-chamber, and minister's vestry. There are four entrances and exits, two of them, in the main street, being provided with porches. The builder is Mr. H. Feast, of Haddenham, Cambs.

CHURCH, GRAVELLY HILL, BIRMINGHAM.—A church, which will be known as All Saints', has been erected at Gravelly Hill. The building was commenced about twelve months ago by Mr. T. Johnson, Mr. R. B. Morgan being the architect. The church as at present will accommodate 350 worshippers, and in due course it is intended to extend it to seat 500. The cost so far has been 2,200*l*. It is built of Leicester red bricks with white brick facings, and is roofed with Broseley tiles.

RE-OPENING OF MERTHYR PARISH CHURCH.—After restoration at a cost of upwards of 8,000*l*., the Parish Church of St. Tydfil, Merthyr, was re-opened recently. The work of restoration has been carried out from the designs of the late Mr. J. L. Pearson, R.A., by Messrs. W. Cowling & Son, of Bristol. The church, which is built of stone, is Romanesque in style.

PRIMITIVE METHODIST CHURCH, HANDSWORTH.—A new Primitive Methodist Church is now being erected at Handsworth, Yorkshire, with seating accommodation for about 300 persons. The building is to be of Yorkshire stone in the Gothic style and to be heated on the low-pressure hot-water system, the total cost being 3,075*l*. Mr. Fidler, of Eckington, is the contractor, and the work is being carried out under the superintendence of the architect, Mr. J. P. Earle, of Sheffield.

CHURCH, WADSLEY BRIDGE, YORKSHIRE.—The foundation stone has just been laid of the new church which is being built on the Ecclesfield-road at Wadsley Bridge, to take the place of the old iron structure. The cost of the site has been about 1,000*l*., and the church, not including the organ, will cost a further 2,600*l*. The new edifice is designed to provide accommodation for 250 worshippers. The church will contain chancel, nave, small north transept, organ chamber, and vestry. The length of the chancel is 27 ft. 6 in. and the breadth 20 ft.. The nave is 61 ft. long and 26 ft. wide. The entrance is by a porch on the south side. At the south-west corner there is a turret, to contain two bells. Some progress has already been made with the building of the outer walls, in which Top Hill stone, from Oughtibridge, is being used, with Stoke Hall dressings. Bath stone is being employed for the interior generally. The east window will be of five lights, with tracery head. There will be an open timber roof of pitch pine, and the church will be seated with pitch-pine benches and a few chairs. The church will be heated with hot water, the heating chamber being in the basement. Messrs. Ellis Brothers, of Sheffield, are the architects.

METHODIST CHURCH AND SCHOOL, DOLPHIN'S BARN, DUBLIN.—On the 15th inst. the corner-stones of a new Methodist church were laid at Dolphin's Barn. The church is being built from plans prepared by W. G. F. Beckett, of Dublin, by Mr. John Pemberton, by whom also the schools adjoining.

CHURCH, EASTBOURNE.—The foundation stone has just been laid of a new church at Ocklynge. The architect is Mr. Granville E. S. Streatfeild.

WAKEFIELD CATHEDRAL EXTENSION.—The Archbishop of Canterbury laid the memorial stone on Tuesday of the cathedral extension now in progress as a memorial of the late Dr. W. Walsham How, first Bishop of the Diocese of Wakefield. The plans prepared by the late Mr. J. L. Pearson, R.A., shortly before his death, and confirmed by his son, Mr. Frank Pearson, of London, provide for the extension of the chancel eastward, adding to the length of the choir. There is in addition to be a retro-choir, the approach to the same, and forming a continuation of it, being a chapel, which will afford accommodation for morning and special services. The chancel aisles are to be extended to the same length as the retro-choir. This extension will take the form of north and south transepts with eastern aisles. By this arrangement, too, a chapter-house and a couple of vestries are to be provided underneath. The communion table will be removed one bay eastward, and it will be separated from the chapel by a screen. Under an arch on the north side of the sanctuary it is proposed to place a canopied tomb, with a recumbent effigy of the late Bishop How. The position of the bishop's throne and choir stalls will also be altered, and various other internal improvements effected. The whole of the work was originally estimated at 20,700*l*, but in addition to this being exceeded by 10,000*l*. another 10,000*l*. had to be expended in enlarging the site. Messrs. Armitage & Hodgson, of Leeds, received the contract for the cathedral extension, and they have now made fairly satisfactory progress with the masonry work of the new chapter-house and vestries.

CO-OPERATIVE PREMISES, READING.—The Reading Industrial Co-operative Society, Limited, have opened a branch establishment in the east end of the town on a site at the junction of London, King's, and Wokingham roads. The premises have a frontage of 56 ft. and a depth of 140 ft. The building has a lofty front elevation and a clock tower, being erected with stone from the Morley quarries, Yorkshire, by Mr. McCarthy E. Fitt, the carving being executed by Mr. Rosser. The clock tower surmounts the central entrance, and is 70 ft. in height, the distance from the pavement to the clock being 54 ft. The clock was supplied by Messrs. J. Smith & Son, of Derby. The ground floor of the premises comprises two shops, one for the sale of grocery and provisions, and the other for drapery and boots, &c. The shops are separated by a corridor entrance to the rear of the building. At the back is a yard with the stores and offices. On the floor above the shops is a room, 53 ft. by 52 ft., which will be used as a furniture showroom, and above and in the rear are also storerooms. Mr. W. G. A. Hambling, of Reading, was the architect, and Mr. T. F. Whiting, of Reading, the contractor. The shop fittings were carried out by Messrs. George Lewis Bros., of Reading, and the window fittings by Messrs. Potter, of London.

OFFICES FOR PERTH PARISH COUNCIL.—Recently the Parish Council of Perth purchased property in York-place, one of the main thoroughfares in the city, for the purpose of having it altered so as to render it suitable for offices required for Parish Council business. The premises in York-place have a frontage of 55 ft., and have entrances both from the main street and from Kinnoull Causeway. On the ground floor are the Inspector's room and the Collector's room, with clerks' offices, together with Medical Officer's room, waiting-room, storeroom, small strongroom, and lavatory accommodation. Underneath there is a storage cellar. On the upper floor are the Council-room, which measures 30 ft. by 25 ft., and the caretaker's house. The contractors are:—Mason work, Mr. William Tait, Errol; joiners, Messrs. Peter Johnstone & Son, Perth; plumber, Mr. Peter Duthie, Perth; slaters, Messrs. James Buchan & Son, Perth; plasterer, Mr. John Sharp, Perth; and glazier, Mr. Charles Alexander, Perth. The plans were prepared by Mr. James Marshall, architect, Perth.

SWIMMING BATH, BROAD-STREET, HOLBORN.—The foundation-stone of a swimming bath in Broad-street, Holborn, was laid on Wednesday by the Duke of Bedford, Mayor of Holborn. The new swimming bath is an extension of the public baths and wash-houses erected in Endell-street by the Commissioners for Public Baths and Wash-houses for the Parishes of St. Giles-in-the-Fields and St. George, Bloomsbury, in the year 1852. The design of Messrs. John & S. Flint Clarkson, of Great Ormond-street, having been accepted from several others submitted, a contract with Messrs. F. Gough & Co., of Hendon, for the erection of the baths was entered into. It is anticipated that the total cost of the land and baths will amount to the sum of 25,000*l*. The extension, which will have a frontage in Broad-street of 55 ft., and a depth from north to south of 130 ft., will provide a swimming bath 90 ft. in length, with closed dressing-boxes entered from the platforms. The bath will be paved with mosaic, the walls faced with glazed bricks, and domed ceilings of fibrous plaster will be formed above the lantern lights; a gallery will run round all four sides of the bath-hall. There will also be subways all round. The bath-hall will be entered through a vestibule, &c, from Broad-street. The height of the bath-hall will be about 40 ft. from the bottom of the bath to the domes. The elevation towards Broad-street will be four stories in height, of Portland stone, red Bracknell bricks being used for the upper floors. The elevation will resemble the existing front in Endell-street, the resemblance being intentionally made so strong that it will be clear that the two frontages are parts of one building. There will also be provided rooms for clubs and a general supplementing of the existing accommodation. All the floors will be constructed of fire-resisting material. The water in the swimming-bath will be heated by steam. Arrangements will also be made for the steam-heating of the atmosphere, so as to counteract condensation and to enable the bath to be kept in use in chilly weather. The building will be lighted by electricity.

THEATRE ROYAL, YORK.—A scheme for improving the Theatre Royal, York, based upon a report by Mr. Frank A. Tugwell, architect, has just been agreed to. The cost is estimated at 5,292*l*.

OPERATION THEATRE, CARDIFF INFIRMARY.—Mr. Edmund Owen, senior surgeon at St. Mary's Hospital, London, formally opened the new operation theatre of the Cardiff Infirmary recently. The new room has two entrances, one for students and the other being the accident entrance, with anæsthetising room and lobby adjoining the chamber used by the surgical staff. The whole of the northern portion of the roof of the building is of glass. The ventilation is controlled by a motor fan in the upper portion of the roof, operated by electricity, fresh air being admitted and warmed by a special arrangement of swing radiators, provided by Messrs. John Williams & Son, Cardiff. The rooms are lighted by electricity. The work has been carried out by the architect of the infirmary, Mr. E. Seward. The contract has been carried out by Messrs. Lattey & Co., of Cardiff, the terrazzo pavements being by Messrs. B. Ward & Co., and the special sinks and fittings by Messrs. Cross Bros. The electrical fitting of the ventilating fan was entrusted to Messrs. Clay Bros., the fan being provided by Mr. Wilkinson, of Cardiff, whilst the electric lighting has been carried out by Mr. Nance, of London.

COTTAGE HOMES, PONTELAND, NEWCASTLE-ON-TYNE.—Cottage homes are being erected at Ponteland by the Newcastle Board of Guardians for the accommodation of destitute children. About seventy acres of ground have been secured. Entering from the Kirkley-road by a new thoroughfare that is being constructed across the fields, the first building will be the superintendent's house, which will also contain the stores and offices. Four double blocks of cottages will be constructed and one half-block, the latter being intended at first as an isolation hospital in the event of any outbreak of disease amongst the children; but in the event of more accommodation being required later on it can be converted into a home and another building erected as a hospital. It is also part of the scheme to erect a workshop for the teaching of trades, such as plumber, joiner, shoemaker, &c., the instruction being given by qualified tradesmen who will be appointed under the title of foster fathers to each block. The intention is to appoint respectable married tradesmen to these positions. Then there are stables and out-offices to be used in connection with the working of the land, part of which will be laid out as kitchen gardens, part as a plantation, and part as arable land. A plentiful supply of spring water has been obtained by boring. The buildings will be of red brick with slated roofs. The larger block of cottages will accommodate forty children, and the three smaller blocks thirty each. The architects are Messrs. Oliver, Leeson, & Wood, and the builder is Mr. Henderson, of Ponteland. Mr. Humphrey Atkinson has been appointed clerk of the works.

EXTENSION OF THE EDINBURGH CITY CHAMBERS.—On the 7th inst. the foundation-stone was laid of the north-west portion of the north front of the City Chambers, Edinburgh. It is several years ago since the plans by Mr. Morham, City Architect, for the extension of the City Chambers were sanctioned. About 200,000*l*. are to be spent on the extension and improvement of the buildings. The work has gone on in sections. The portion now arranged for will be continued along Warristoun Close, and will have a frontage to Cockburn-street and the north. On that side it takes the place of the

house known as the City Hotel, but the new building will be carried up to the height of the present City Chambers. From the pavement at Cockburn-street, with which it will be brought into line, this block will rise to a height of about 120 ft. The first and second stories, which are in one, and the third, fourth, and fifth will be built in deeply-rusticated courses, each stage being pierced with three windows; on the sixth floor the windows have broken coigned architraves; there is an entresol with lozenge-shaped openings; and the seventh and eighth floors, also in one, are elaborately and decoratively treated with pilasters, those framing the central window also carrying a broken pediment. At the wall-head there is an open balustrade, and the front is finished off by a group of statuary. In the two top floors is placed the new Council Chamber—a hall 65 ft. in length, 36 ft. in breadth, and with an average height of 25 ft., its area being nearly three times that of the present Council Chamber. The new Council Chamber is the leading feature of the part of the scheme now being built, the estimates for which amount to between 15,000*l.* and 16,000*l.* Lifts will be provided from Cockburn-street to the various stages of this block, both for passengers and stores. The chief contracts have been secured by Messrs. Turner & Sons for the mason work, and by Mr. Colin M'Andrew for the joiner work. It is intended that the block will be faced with Prudam stone. The other parts of Mr. Morham's design still to be executed include the extension of the whole of the north face of the present City Chambers to the line of Cockburn-street, and its extension southwards by Allan's Close.—*Scotsman.*

ENLARGEMENT OF WINDLESHAM INSTITUTE, SURREY.—An addition is being made to the Windlesham Institute. Three rooms are being added at the rear of the present building, and these will include a hall 50 ft. by 30 ft., with stage, available for public meetings. The two other rooms will be 17 ft. by 20 ft. The plans are by Messrs. Cancellor & Hill, of Winchester, and the work is being executed by Messrs. Dale & Son, Updown Hill.

SUNDAY SCHOOL EXTENSION, BARNSLEY, YORKSHIRE.—The foundation stones of an enlargement of the Wesleyan Sunday School, Heelis-street, Barnsley, were laid on the 6th inst. Mr. G. Moxon is the architect.

SANITARY AND ENGINEERING NEWS.

THE STAINES RESERVOIRS.—The joint committee of the Staines reservoirs, together with some of their friends, paid a visit of inspection to the works on the 17th. From Sunbury the party drove to the intake at Bell Weir. Here the sluices and the machinery for working them are practically finished, and the same is true of the conduit along which the water flows by gravitation from the intake to the pumping-station at the reservoirs. At the latter, the boiler-house and engine-house are complete, though the boilers are not yet in place and the pumping engines are only in course of erection. Most of the piping between the pumps and the reservoirs is also laid, and the aqueduct from Staines to Hampton has been formed. The two reservoirs, with their total combined storage capacity of 3,300 million gallons, are both finished as regards their embankments, which measure over four miles round. The more northerly of the two is rapidly nearing completion, for little else remains to be done beyond putting in the concrete facing, which is necessary to resist wave-action on the higher portions of the slopes, and of which about three-quarters are already in place. The last quarter will be finished shortly, and it is hoped that this reservoir will be ready for use, if required, in the course of the present year. The other, or southern, reservoir is in a less advanced condition, the concrete facings not having yet been begun, but it will probably be finished next year. When this has been done, the three companies concerned —the West Middlesex, the New River, and the Grand Junction—will have an additional supply of thirty-five million gallons a day. When the flow of the river at Bell Weir exceeds 265 million gallons a day they may abstract any surplus up to 100 millions, of which 35 million gallons may be run direct to the filter beds at Hampton, and the residue pumped into the reservoirs. If the flow at Bell Weir is less than the minimum specified, nothing may be taken from the Thames there, but the companies have the water stored in the reservoirs to fall back on. It follows, therefore, that London generally—for by means of connecting mains other companies besides those directly interested will be able to share in the new supply in case of emergency—will derive from the new scheme at Staines an increased supply of 35 millions a day, taken direct from the river if the Thames is full, and, if it is low, from the reservoirs, which alone will be able to yield that amount for over three months.—*Times.*

NEW CLOCK IN THE CITY.—A clock has just been fixed in the new premises of Messrs. Nicholson, of St. Paul's Churchyard. It has been made by Messrs. J. W. Benson, of Ludgate Hill. The wheels are of brass, and the time is shown upon a 6-ft. dial of opal glass for illumination by electric lamps, which are switched on and off automatically by the clock at any time required.

FOREIGN.

FRANCE.—The Municipal Council of Paris have decided on carrying out as quickly as possible all the projected lines of metropolitan railway. These various lines, the final schemes for which will be formally approved before the end of the year, are as follows: the line from Courcelles to Ménilmontant; from the Porte de Clignancourt to the Porte d'Orléans; from the Boulevard Strasbourg to the Place d'Italie; from Vincennes to the Place d'Italie; from the Palais Royal to the Place du Danube; and from Auteuil to the Place de l'Opera. The circular line by the outer boulevards does not appear in this list, because it is already in course of execution.——A statue of Edouard Pailleron, the well-known dramatist, is to be erected in the Parc Monceau; and it is proposed to erect in the Champs Elysées the monumental statue of Daudet, which has been exhibited in the New Salon. In case, however, the Municipal Council refuse to make that promenade a place for monumental erections or statues, the Daudet monument will be placed in the Luxembourg garden, where in fact it will be seen to much more advantage.—— Three artists, M. Bouvet, M. Darrieu, and M. Paul Schmidt, were selected to take part in the final competition for the decoration of the Salle des Fêtes of the Mairie of Asnières. M. Bouvet has been selected to carry out the work.——M. Dalou has completed the statue of Hoche, which is to be erected on the peninsula of Quiberon, on a pedestal designed by M. Formigé.——The Municipal Council of Paris has postponed to the summer of 1902 the demolition of the Galerie des Machines; in the mean time the great building is to be let to Mr. Barnum for a circus exhibition.——The Société des Amis des Monuments Parisiens has protested anew against the proposed enlargement and alteration of the Bourse, as completely destroying the original architectural lines of the building.——An international exhibition of fine arts is to be held at Boulogne-sur-Mer, from July 19 to September 7.

MISCELLANEOUS.

PROFESSIONAL AND BUSINESS ANNOUNCEMENT.—Mr. Edwin T. Hall, architect, has removed his offices from 57, Moorgate-street, E.C., to 54, Bedford-square, W.C.

THE LATE MR. ARTHUR CATES.—Mr. Arthur Cates, of 12, York-terrace, Regent's Park, formerly of 7, Whitehall-yard, architect, who died on May 15 last, aged seventy-two years, leaving personal estate of the net value of 174,064*l.* 18s. 11d., and the gross value of the whole of whose estate is 190,949*l.* 5s. 11d., bequeathed by his will of March 20, 1900, 1,500*l.* to the Royal Institute of British Architects for an "Arthur Cates Prize," and 1,500*l.* to the Architects' Benevolent Society, and 500*l.* to the Benevolent Fund of the Surveyors' Institution, and 500*l.* to the Charitable Fund of the Surveyors' Club.

THE ALTERATIONS OF THE MALL.—In the House af Commons on the 18th inst., Major Balfour asked the First Commissioner of Works, in view of the proposals for altering the Mall in the neighbourhood of Buckingham Palace, whether he could arrange that there should be a public exhibition of the designs before they are finally approved. Mr. Akers-Douglas: Should any decision be come to in regard to the memorial of Queen Victoria which will involve an alteration of the Mall, I think I can undertake to exhibit the proposed design for the information of the House.

MARBLE INDUSTRY OF THE PIRÆUS.—The development of the Pentelicon marble quarries in the district of Piræus by the British company "Marmor, Limited" (which has a capital of 350,000*l.*) is still, according to an official report received at the Foreign Office, being proceeded with, though, perhaps, during the past year the progress of the undertaking has not realised all expectations. There has been a great outlay in the development of the estate, 150,000*l.* having been spent for this purpose, and the installation of railways, of inclined planes, sawing and polishing machines, railway waggons, locomotives, cranes, &c., and the preparation of these facilities for working the quarries has taken longer than was anticipated. By the end of the present month, however, it is hoped that everything will be in working order. There is a very considerable demand for this marble in the Greek market, and the Company have been fortunate in obtaining the contract for the supply of 211,902 cubic feet of marble to be delivered in three years for the Stadion in Athens, funds having been left for this purpose by the late M. Avery, of Alexandria. There are indications also that this marble will find a ready market abroad. Inquiries are made from all parts of the world, and several trial shipments have been made to America, where there is a good demand for marble of this kind for buildings. From one of the quarries a huge block of marble has been cut for the statue of Moltke at Berlin, weighing seventy-five tons, but on account of the freight and other expenses in connexion with moving it, the block will be reduced more or less to the actual shape of the statue till its weight is diminished to thirty-five tons. The principal shipment of this marble up to the present is to Germany, in German bottoms, and German ships have made special arrangements to strengthen their winches for this purpose. Efforts have been made during the past year to induce British lines to carry this cargo, but so far without effect. It may be that they are waiting for the traffic to become larger and more regular, but if so, foreign lines will have been in the field for some time. The green Cippolino marble at the South of Eubœa is being brought out now in larger quantities, as also is that from Tinos, and each of these marbles, more especially the former, is establishing a sound demand.

THE SANITARY INSTITUTE.—At an examination in Practical Sanitary Science, held at Dublin on June 7 and 8, 1901, two candidates presented themselves, to whom certificates were granted, viz:—Thomas Byrne and George Ward

ABERDEEN ARCHITECTS AND MASTER TRADESMEN.—On the 14th inst. there was held in the Music Hall Buildings, Aberdeen, a meeting of builders, house proprietors, property agents, unassociated architects, and others in favour of resisting the action recently taken by the Aberdeen Architects' Society in what was described as "an endeavour to create a monopoly in the building trades." Mr. J. W. Forrest, painter, was called to the chair, while Mr. R. C. Jackson, solicitor, acted as clerk to the meeting. After the chairman had criticised as objectionable the new regulations which the architects were pressing upon the different tradesmen, the following motions were adopted unanimously:—1. "That this meeting expresses its strong condemnation of the selfish action taken by the Aberdeen Society of Architects in endeavouring to bring the whole building trade into the hands of a few who call themselves the Society of Architects, and as being against all sense of fairness, legitimate competition, and justice, especially so in view of the fact that the amount of work which passed through their hands during the last two years only amounts to about one-third of the work done by the whole building trade of the city during that period." 2. "That this meeting, composed of builders, owners, and others who have the management of property, strongly disapproves of any firm or firms pledging themselves to the architects, and resolves to do all in their power to prevent these regulations taking effect and to bring pressure to bear on the different tradesmen whom they employ, that they must maintain their freedom." 3. "That we all approve of the action taken in calling this meeting, and appoint a committee to watch the different interests represented, and to call another meeting if required, or any other steps they may think necessary." In the course of the proceedings it was stated that of the thirty-four architects or firms of architects in Aberdeen, only fourteen belonged to the Society of Architects, and that out of thirty-three slaters only eleven had agreed to the articles; and special objection was made to two of the demands by the architects, viz., that any renewal or repairs in connexion with which a plan had to be submitted to the Town Council, must be carried out by a member of the Society of Architects, and that all repairs, the total cost of which would exceed 25*l.* should be done through one of the members of their association.

THE NEW GOVERNMENT OFFICES.—In the House of Commons on the 14th inst., Mr. Whitmore asked the First Commissioner of Works whether he could state what arrangements were being made to ensure the satisfactory execution of the designs of Mr. Young and Mr. Brydon for the new Government offices.—Mr. Akers-Douglas: To my great regret both Mr. Young and Mr. Brydon, the architects originally selected to carry out the building of the new War Office and the Government offices in Parliament-street have recently died. My hon. friend will remember that Sir John Taylor was specially appointed to act with them as consulting architect. In the case of the War Office, Mr. Clyde Young, the son and partner of the original architect, is now carrying out the work in conjunction with Sir John Taylor. No definite decision has been come to with regard to the Government offices in Parliament-street, the question being now under the consideration of the Treasury and of my Department. The completed plans and drawings are in the hands of the Office of Works, and can be carried out either by the Department's architects or by an architect specially selected for the purpose.

TRACING CLOTH.—Messrs. L. & C. Hardmuth send us a sample of their "Kohinoor Tracing Cloth," which seems to be in every way satisfactory to work on—as satisfactory, that is to say, as tracing cloth can be—and has the merit of very complete transparency.

INSTITUTION OF ELECTRICAL ENGINEERS.—The annual conversazione of the Institution of Electrical Engineers was held in the Natural History Museum, South Kensington, on Friday last, the numerous guests being received by the President and Miss Langdon. The evening passed off most successfully, and the string band of the Royal Engineers played an admirable selection of music. The illuminated address recently presented to the Institution by the American Institute of Electrical Engineers was exhibited in the central hall.

SCHOOL OF ARCHITECTURE AND APPLIED ART, LIVERPOOL.—An exhibition of work done by students of the City of Liverpool School of Architecture and Applied Art during the past session was opened on the 14th inst. in the Walker Art Gallery by the Lord Mayor. The school, it may be men-

tioned, is held at University College, and the exhibition is under the auspices of the Board of the City of Liverpool School of Architecture and Applied Art. There are architectural designs, modelling, decorative designs, examples of stained glass, copper work, some examples of enamels, which branch was only started this year, and also some examples of wood carving, wrought iron, and other crafts. Councillor John Lea, Chairman of the Board, presided, and there were also present Professor Simpson (University College), director of the school, and Messrs. Allen, John, J. M'Nair, Rathbone, instructors. The Chairman having expressed pleasure at seeing the Lord Mayor present, Professor Simpson said there were seventy-three students attending the day classes at the school and 171 the evening classes, a total of 244 during the past session. This was fairly satisfactory, considering the limited accommodation at their disposal for students. The principal aim of the school was the special attention given to arts and crafts allied to architecture, and it was of the utmost importance nowadays that students, apprentices, and others should have an opportunity of obtaining an insight into the secrets of their crafts and their methods of working them, which in the old days of apprenticeship system were learned only in the workshop. A point he wished to emphasise was the great advantage of such a school to architects, manufacturers, and others, and he felt that persons in these walks of life who had the power of placing work should take advantage of the skill and ability of students who had been trained in such a school as this. On the Continent manufacturers and others were closely in touch with the higher technical schools, and it was due to this fact that great strides commercially had been made in Continental countries.—The Lord Mayor said that his connexion with that school was very small. For three years he served on the Technical Instruction Committee, and amongst the money grants which that Committee gave to various portions of the University was one of 1,000*l.* annually towards this special department of the University, viz., architecture and applied art. He also found that an additional grant of 400*l.* had been given this year consequent on the very great work the school was doing. The number of students in the school was very satisfactory, and the attendance good. The classes included no fewer than twenty different crafts, which showed that they were really trying to embrace all the objects which would be beneficial to the trade of the city.

CAPITAL AND LABOUR.

THE BRADFORD BUILDING TRADE DISPUTE.—So far, says the *Bradford Observer*, there is no sign of either the Master Builders' Association or the various operative societies giving way on the points at issue, and to this extent the situation remains practically unchanged. If anything, both sides appear to be even more uncompromising in their attitude than when the trouble first arose. The employers still express their willingness to refer the whole subject to arbitration, but there appears to be no prospect as yet of their offer being accepted. When this proposal was originally introduced the refusal to entertain it was practically unanimous On May 1, when the notices came into operation, the approximate number of men thrown out of employment was 1,300, comprising 700 masons, 300 joiners and carpenters, 150 labourers, 50 bricklayers, and 100 non-union men. During the course of the dispute, however, this total has almost been diminished to half the number, especially in the case of the societies which have the advantage of a complete organisation throughout the country. Speaking generally, the building trades are reported to be in a tolerably flourishing condition, and through the agency of branches of the operative societies in other centres, the workmen affected by the dispute are gradually being drafted out of the town. In only a comparatively few instances have they returned to Bradford. Accordingly, the Society of Operative Masons had yesterday about 350 names on their books instead of the 700 of six weeks ago. The union officials state that in all these cases the men have no difficulty in obtaining the conditions which they are advocating in Bradford. The Amalgamated Society of Carpenters and Joiners report a similar exodus, though in this case the proportion of departures does not appear to be quite so large as amongst the masons. However, instead of 300 or 350 members, the roll-call does not now show more than about 250. Not only are the men taking up employment elsewhere as opportunity occurs, but, what is still more satisfactory from their point of view, a very large number of applications for "clearance" are being dealt with, so that evidently the operatives are settling down to their new employment, with no immediate idea of returning to Bradford. The members of the Amalgamated Society of Carpenters and Joiners regard the situation with some degree of equanimity. According to the returns for the current month, the society have a total membership of over 67,000, and a general fund of 250,000*l.*, whilst last year, without any special levy, they expended about 30,000*l.* in a similar conflict against the employers at Belfast. In the case of the branches of the building trade which are not so highly organised, the percentage of transfers to other towns is naturally not so great, but in the aggregate the total, week by week, steadily becomes less. A few of the operatives have resumed work in Bradford, but all the public works of the city remain at a standstill, these including the Cartwright Memorial Hall, the Corporation Markets extension, the new Conditioning-house, and the new Central Fire Station.

THE BRICKLAYERS' STRIKE, NORWICH.—Taking the carpenters' settlement as a precedent, the masters have recently offered the bricklayers, whose strike is now in its second year, an advance of a halfpenny an hour, to begin on January 1, the settlement to be operative for four years, dating from June 1 last. This offer, however, was accompanied by various conditions designed mainly to prevent those vexatious disputes which have formerly arisen among different classes of workmen, notably bricklayers and plasterers, as to the line of demarcation between their respective duties. The men would prefer that the halfpenny per hour should begin with the resumption of work; and that the conditions, some of which they are strongly averse to, should be settled by conference afterwards. However, they have held a meeting on the subject at their headquarters, the Pigeons, Charing Cross, and we are informed unofficially that they practically agreed to accept the masters' terms. The result has not yet been communicated to the masters, but we believe the strike may be regarded as ended.—*Eastern Daily Press.*

LABOURERS' STRIKE, CLEVEDON, SOMERSETSHIRE.—The masons' labourers have struck for an advance of wages from 4¼d. to 5d. per hour. The masters have offered 4½d., making a weekly wage, full time, of 1*l.* 1s. 6d.—which, they assert, is as much as can at present be paid for unskilled labour. The labourers urge that the pay in Bristol is 5d. per hour, and that certain contractors in Clevedon, who come from a distance, pay that sum. About forty labourers are involved.

LEGAL.

DISPUTE BETWEEN ARCHITECTS.

THE case of Portsmouth *v.* Seward came before the Court of Appeal, composed of Lords Justices Rigby and Collins on the 14th inst., on the appeal of the defendant from an order of Mr. Justice Kekewich in the Chancery Division, dated May 14, 1901.

Mr. Warrington, K.C., in opening the case, said this was an appeal by the defendant from an interlocutory order of Mr. Justice Kekewich granting an injunction until judgment or further order restraining the defendant from carrying on business as an architect at Swansea. The order was founded on an agreement entered into by the defendant, and made on January 9, 1899, by the defendant and his then partner upon the sale by them to the plaintiff of a business which they were then carrying on at Swansea, and the question their lordships had to determine was a question on the construction of the agreement, the facts being admitted. The facts were these:—Prior to January 9, 1889, the defendant, Mr. Edwin Seward, and Mr. George Thomas were practising as architects and surveyors at Swansea and at Cardiff, and the plaintiff Henry Charles Portsmouth was employed by them in their Swansea business. In that state of things Messrs. Seward & Thomas agreed to make over to the plaintiff their Swansea business, they continuing their Cardiff business, and the agreement of January 9, 1889 was entered into for that purpose. By the agreement Messrs Seward & Thomas bound themselves to discontinue practising in Swansea, and not to open or encourage any one to open an office for the carrying on of their practice as architects and surveyors in Swansea so long as Portsmouth should remain in practice there, except only that they reserved the right to act in all cases in which they might be called upon or specially invited to act in either branch of their profession. There was no stipulation that they were not to ask for business in Swansea, but they were not to open any office there. Immediately after that agreement Messrs. Seward & Thomas gave up their business in Swansea, and they had never had an office there since, and they had never since practised in Swansea. But in August of last year the Swansea Harbour Trust, which was an important public body in the town, issued an advertisement which went broadcast over the whole of the country, asking for architects to send in designs for new offices which they were proposing to erect. Mr. Seward, who was then carrying on business alone, saw the advertisement in one of the building trade papers. The effect of the advertisement was that two premiums were offered, the first 100*l.* and the second 50*l.*, and that the architect's commission would be 5 per cent. on the outlay, to include all sketches, estimates, and specifications, and to involve personal superintendence of the work as architect. It was also provided that should the author of the selected design be appointed architect, the premium was to merge in and form part of the commission. Mr. Seward sent in designs in accordance with the conditions and the plaintiff also sent in designs, there being ninety-seven altogether sent in. The committee to whom they were referred selected six designs, amongst them being the defendant's, but the plaintiff's design was not accepted. Ultimately, the committee accepted the defendant's design. Having accepted his design on February 6 last, the clerk wrote requesting him to send in his detailed drawings, specifications and quantities. There for the moment the matter ended. The defendant would probably be employed to do the work, and unless he was restrained from doing it he intended to do it if he was employed. The question to be determined was whether that agreement prevented Mr. Seward from undertaking this business. Mr. Justice Kekewich had granted an injunction which would prevent him from undertaking the work, and it was from that order that he appealed.

Lord Justice Collins: Is there any evidence as to how long the work will take?

Mr. Warrington: No, there is no evidence as to that.

Lord Justice Collins: It does not involve his taking an office to do it?

Mr. Warrington: No, he does not intend to open an office. He would merely be the superintending architect. It clearly does not hurt the plaintiff because he competed and was not accepted, and, therefore, the defendant is not preventing the plaintiff from getting work he otherwise would have got. I ask your lordship to say that the agreement does not apply to this case. I contend that all the agreement does is to restrain the defendant from holding himself out as a local practitioner, and that is what the defendant has not done.

Mr. Renshaw, K.C. (with him Mr. Christopher James), submitted that the decision of the learned judge in the Court below was right. One of the conditions was that the architect was to personally superintend the work, and by so doing Mr. Seward would be practising as an architect in Swansea in breach of the agreement. It could not be said that he was ever called upon or specially invited to act in the matter, and therefore this did not come within the exception.

Their lordships, without calling upon counsel for a reply, said the agreement expressly provided that if any one wished the defendant to act for him in Swansea he was not to be restrained from acting. There was nothing to prevent the defendant from sending in designs in the competition, and if he was successful there was nothing to prevent him from undertaking the work if requested to do so.

The appeal was accordingly allowed, and the order of the Court below discharged.

ACTION BY A VENDOR AGAINST PURCHASER FOR SPECIFIC PERFORMANCE OF CONTRACT.

MR. JUSTICE FARWELL, in the Chancery Division on the 13th inst, delivered a considered judgment in the case of Greenhalgh *v.* Brindley, which raised the somewhat important question as to the duty of a vendor to disclose to a purchaser a contract with reference to the access of light and air to the premises sold.

The material ifacts were these:—The action was by a vendor for specific performance of a contract in writing, dated October 4, 1900, for the purchase by the defendant of twelve houses in Florence-street, Stockport. The contract was an open one, and in the course of the negotiations which led up to it, the plaintiff wrote to the defendant on August 27 stating that the houses were four years old, and in September the defendant visited and saw the houses for herself. The property abuts on Florence-street, and contains windows looking over the street on to public recreation grounds which were vested in the Corporation of Stockport under a conveyance dated in 1873, and subject to covenants which prevent the erection of buildings thereon and their use for any other purpose than recreation grounds without the consent of the grantors. Nothing was said either in the negotiations or in the contract with reference to the access of light to the windows. After the contract the defendant ascertained that the plaintiff had entered into a deed of covenant with the Corporation dated February 10, 1900, and on this ground declined to perform the contract. The deed of covenant was made between the Corporation of Stockport of the first part, a Mr. Walmsley, the mortgagee of the houses, of the second part, and the plaintiff (the owner) of the third part, under which the plaintiff as owner covenanted with the Corporation to pay them the yearly sum of 1s. on March 25th in each year, the plaintiff and his mortgagee declaring that each of such payments was a fresh acknowledgment that the plaintiff was not as owner entitled as of right to the uninterrupted flow of light or air to any windows or lights in the southerly walls of the said houses over or from the recreation ground. It was also declared that in case of the non-payment of the said sum of 1s. in any year, the fact of such non-payment should not be taken as an abandonment of the rights of the Corporation to obstruct on their own land the admission of the light and air to the said lights or windows of the houses in question No purchaser would be bound by the covenant to pay contained in this deed but as against a purchaser with notice, the deed would have the effect of a consent in writing within Section 3 of the Prescription Act granted by the Corporation and accepted by the purchaser and continuing until determined

by notice of repudiation. The defendant, as purchaser, contended that she was prejudiced by the deed by losing four years of the statutory period, and by being compelled to give notice of repudiation with the consequent probability of exciting the Corporation to block the lights at once.

Mr. Justice Farwell held that a contract for the sale of a house with windows looking over the land of a third person implies no representation of warranty that the windows were entitled to the access of light over such land. If such access had in fact been enjoyed for the statutory period, then the property had the easement of light; but an access for ten years created nothing at all. He found, therefore, that there was no ground on which he could refuse to grant specific performance or on which he could give the defendant compensation. He, however, made no order as to costs, because he thought that the plaintiff ought to have informed the defendant before the contract of his covenant with the Corporation, and left her to judge for herself whether it was or was not advantageous to the property.

Judgment was accordingly entered for the plaintiff without costs.

Mr. W. H. Upjohn, K.C., and Mr. T. T. Methold appeared for the plaintiff, and Mr. C. E. Jenkins, K.C., and the Hon. Frank Russell for the defendant.

THE VIBRATION CASE AT LEYTON.

THE case of Hawkes *v.* the Leyton Urban District Council was in the list to be mentioned to Mr. Justice Buckley in the Chancery Division on Monday, the 17th inst.

Mr. H. Terrell, K.C., on behalf of the defendants, said that the matter was before his Lordship on the last occasion on May 14, on an application by the defendants to suspend the operation of a writ of sequestration granted by his lordship and confirmed by the Court of Appeal, for breach of an injunction to restrain a nuisance caused to the plaintiff in the use by the defendants of gas plant in connexion with their electric lighting works. His lordship then made an order staying the operation of the writ over that day. The learned counsel read affidavits to the court which showed what the defendants were doing to substitute steam plant for gas plant, and by the consent of the other side his lordship further stayed the operation of the sequestration for eighteen months, with liberty to either party to apply in the meantime. It was stated that the gas plant had been disconnected and the defendants were ordered to pay the costs of the present and the last application, which were directed to be included in the same taxation as the costs of the order for sequestration.

WORKMEN'S COMPENSATION ACT:

WHAT IS AN "ACCIDENT"?

A JUDGMENT of considerable importance was delivered on Monday by Judge Stonor at Marylebone County Court. The applicant in the case was Richard Perry, a carpenter and joiner, 14, Napier-road, College Park, N.W., and he had brought an action under the Workmen's Compensation Act against Messrs. Baker & Sons, Hythe-road Works, and High-road, Willesden Green, N.W., the claim being in respect of personal injuries said to have been sustained by the applicant while in the respondents' service.

The facts of the case are clearly stated in the judgment, which was to the following effect:—

The applicant in this case is a carpenter and joiner, and was on September 18 last in the employment of the respondents. At the trial the applicant deposed that on September 18 last he was working at the respondents' works making a large oak seat or bench. He had got the seat together, and while lifting it up, to see if a joint was right underneath, he suddenly felt a pain in his side. He could not straighten himself nor continue his work, but had to go home. In consequence of the accident he was in bed for three weeks or a month, and he was still suffering from the result of the accident. The applicant's appearance at the hearing—continued his Honour—corresponded with his evidence. There was no evidence of any actual disease in the applicant. It was contended on the part of the respondents that the accident, or at all events the effects of it, were partly caused by the applicant's stoutness and unwieldiness—in other words, his general condition of body—and that the applicant was therefore barred from recovering in this action. The case of Lloyd *v.* Sugg & Co., 1900, 1 Q.B., 481, Senhouse's Cases II., p. 5, however, shows clearly that such is not the case, supposing that the accident had been caused partly by the applicant's condition of body or even by actual disease. There could, therefore, be no reasonable doubt that the applicant was entitled to compensation under the Act if the "accident" came within the Act, and it was, in fact, regularly paid to him until January 5—more than three months—by the respondents with the concurrence of the insurance company in which the latter were insured. The only question, therefore, to be decided in this action is whether the injuries which the applicant received arose from an "accident" within the meaning of the Act. Now, according to the natural meaning of the word "accident," its definition in every dictionary, and its use in common parlance, and in the absence—as far as I can see—of any provision in the Workmen's Compensation Act narrowing its signification, or requiring it to be narrowed, I should have no hesitation in finding that the fact of being disabled from work by simply lifting a seat through straining or injuring the muscles of the back without any unusual or unreasonable exertion was an "accident" within the meaning of the Act; and the breaking or injuring a muscle or other portion of the human frame in the due execution of the employer's work appears to me to be the same as the breaking or injuring any tool or instrument under the like circumstances; and, therefore, that the employer would be equally liable under the Act in both cases for any consequent evil results to the workmen employed. If, therefore, the point were untouched by judicial decisions, I should certainly find for the applicant. There are, however, several recent decisions of the Court of Appeal which point to a different conclusion, and show that the learned Judges of that Court are of opinion that a narrower construction ought to prevail, but the exact ground of that opinion, I regret to say, I have failed to discover. I refer particularly to the cases of Hensey *v.* White, 1900, 1 Q.B., 481, Senhouse's Workmen's Compensation Cases II., p. 1; Walker *v.* The Lillieshall Coal Company, 1900, 2 Q.B., 401, Senhouse's Workmen's Compensation Cases 21; and Timmins *v.* Leeds Forge Company, 16 T.L.R., 521, Senhouse's Workmen's Compensation Cases II., p. 10. In the first two cases the Court decided in favour of the respondents, and in the last case in favour of the applicant, but on the ground that some planks had been unexpectedly frozen to each other, and consequently required unforeseen and unusual exertions from the applicant in lifting them. Independently of special circumstances like those I have just mentioned, the Court of Appeal in these and other cases has held, as I understand, that to come within the meaning of the Act an "accident" must be from some external cause, resulting directly in injury; *e.g.*, a blow through a miss hit (Lloyd *v.* Sugg), or a sudden frost (Simmins *v.* The Leeds Forge Company), and not from internal causes *directly*, as in the cases of reasonable personal exertions in working engines (Hensey *v.* White) or the handling of usual materials and appliances (Walker *v.* the Lillieshall Coal Company). In the present case the accident—for accident it was, whether within the meaning of the Act or not—was the internal injury to the applicant in the muscles of his back, through the movements of his body in the usual and reasonable exertion of lifting a bench under perfectly ordinary circumstances, and I can see no material distinction between it and the cases of Hensey *v.* White, and Walker *v.* The Lillieshall Coal Company, and I feel bound by the decisions of the Court of Appeal in those, and also in other cases, to find for the respondents.

DISPUTE ON A CONTRACT.

THE case of the Brush Electrical Engineering Company *v.* the Governor of Malta came before a specially constituted Court of King's Bench, composed of Justices Bruce, Kennedy, and Phillimore, for judgment on the 10th inst. The case was argued before Justices Kennedy and Phillimore a few weeks ago, but as their Lordships differed, an additional Judge (Mr. Justice Bruce) was called in and the matter re-argued.

The case came before the Court in the form of a special case, from which it appeared that differences having arisen between the Brush Electrical Engineering Company, Limited, and the Governor of Malta in respect of claims made against the latter under a contract of March 22, 1895, the matter was referred, under the arbitration clause in the contract, to Mr. E. Manville. It appeared that the claimants undertook to execute certain works for the supply of electricity in Malta, and Sir W. H. Preece, K.C.B., acted as consulting engineer from time to time, when certificates were given by him and payments made for work done. On November 20, 1897, the consulting engineer gave the claimants two final certificates, the first certifying the sum due to the claimants, being the final balance less one-fifth of the total amount for the contract price deducted therefrom; and the second certifying that the whole of the works had been completed and had worked satisfactorily for six months from completion, and that the other obligations of the claimants had been performed, and that the above-mentioned one-fifth of the total amount of the contract price was then due to the claimants. In ascertaining the amounts so certified, the consulting engineer deducted from the total price of the work as determined by him the sum of 450*l.* as damages for delays under the contract. The respondent, the Governor of Malta, had offered to pay the total amount certified by the engineer, less a sum of 1,000*l.* (in addition to the 450*l.* already deducted), which he claimed to be entitled to set off as liquidated damages for delay. On June 1, 1900, the parties appeared before the arbitrator, when the claimants professed to give evidence in support of their claim for the total amount of the invoices sent by them to the engineer, less certain deductions which they had allowed. In particular they proposed to give evidence to show that the engineer had not correctly estimated the value of additions and deductions in accordance with paragraph 35 of the contract. The respondent contended that such evidence was not admissible. On his part the respondent proposed to give evidence to show that he was entitled to deduct the further sum of 1,100*l.* as liquidated damages for delay as provided under the contract. The claimants contended that such evidence was not admissible. The questions of law for the opinion of the Court were (1) whether the engineer's certificate was a condition precedent to the claimants' right to recover under the contract; (2) whether the engineer's certificate was binding and conclusive between the parties with regard to the points raised in the statement; (3) whether the engineer's certificate was binding and conclusive between the parties with regard to the amount due to the claimants apart from the question of damages for delay; (4) whether the engineer's certificate was binding and conclusive between the parties with regard to the amount due to the respondent in respect of damages for delay.

Mr. Justice Bruce and Mr. Justice Kennedy in giving judgment, having stated the facts, said it was unnecessary to answer question (1) of the special case because their subsequent answers showed their opinion. Their answer to the second question was "No," the answer to the third "Yes," and the answer to the fourth "No."

Mr. Justice Phillimore dissented with the majority of the Court on its finding as to the third question.

No order was made as to costs.

ACTION BY BRIGHTON BUILDERS AGAINST BUILDING-OWNER.

A DIVISIONAL COURT of King's Bench, composed of Justices Bruce and Phillimore, on the 12th inst. disposed of the case of Sattin and another *v.* Poole on the appeal of the plaintiffs, a firm of builders carrying on business in Brighton, from a decision of Mr. Verey, the Official Referee, in an action brought by the plaintiffs against the defendant, Mr. Geo. Thomas Poole, also of Brighton, on a contract under which the plaintiffs carried out certain building work on the St. James's Restaurant, in St. James's-street, Brighton, of which the defendant was the owner.

It appeared that by the terms of the contract in question the plaintiffs undertook to reconstruct the building within a specified time limit, the penalty of exceeding which was 12*l.* a week should the architect (Mr. Clayton Botham, of Brighton) not give the usual certificate for extension of time. The defendant paid for everything in connexion with the work except a balance of 681*l.* due to the plaintiffs, but in regard to this he claimed 231*l.* by way of penalties, and paid 450*l.* into court as being sufficient to meet the plaintiffs' claim. The case went before the Official Referee upon the point as to whether the penalties could be deducted under Clause 24 of the contract. The Official Referee held that the contractor had failed to complete within the time that the architect certified that the work could have been reasonably completed, and that the defendant under Clause 24 of the contract was entitled to deduct from the sum due from him to the plaintiffs a sum exceeding 231*l.*, the balance of the claim, after payment into court of 450*l.* He accordingly entered judgment for the defendant. From this decision the plaintiffs appealed on the grounds that the Official Referee had refused to hear the evidence offered on the part of the plaintiffs to show that the delay was caused by the owner, or by his architect, in ordering extras, in supplying material after the specified date, in delay in the selection of stone to be used, and in the alteration of plans.

In the result their lordships upheld the decision of the Official Referee and dismissed the appeal.

Judgment accordingly.

Mr. Frank Dodd appeared as counsel for the plaintiffs (appellants), and Mr. Herbert Reid, K.C., and Mr. Kisch for the defendant (respondent).

RECENT PATENTS:

ABSTRACTS OF PATENTED INVENTIONS.

3,009.—PENDANT, BRACKET, AND SIMILAR LAMPS: *W. Fahndrich.*—In order that the hanging pipes and fittings may be partially hidden with the globes or shades by way of giving the dropping effect of electrical lamps, and that the metal fittings may be placed out of the course of the products of combustion, it is arranged that the globe or shade shall be joined to the holder, or clips, by means of an engagement between a flange upon its upper end and screw bolts or screws, whilst the burner is joined to the arm, or arms, of the gasalier or pendant with rods or tubes. For a globe which has an open lower end a thumb-piece is provided for the turning of the gas-cock, but for a globe that is closed beneath, the gas-cock should be mounted upon one of the bracket or pendant arms, side openings being made near the base of the globe for supplying air and facilitating access to the burner.

3,023.—LIFTING APPARATUS FOR CRANES: *F. Fielding.*—One end of the hoisting chain is passed around a pulley and another pulley upon the shaft, for attachment to the jib; the other end is passed around a pulley and another pulley upon the shaft, and so to the end of the jib and the crane-hook; the jib is thereby partly sustained by the load and stays at a constant level when the load is luffed; to the jib is attached a rope that is passed around a double fusee and has at its one end a weight for balancing the jib, a part of the rope is upon the smaller diameter and the other part is upon the larger diameter of the fusee when the jib is at its highest position; but they will have changed their relative places at the extension of the jib, with which the balancing moment of the weight is thereby increased.

3,064.—JOINTS OF CORRUGATED SHEETS: *F. Smith.*—The inventor devises angular corrugated strips for joining, angle-wise, corrugated sheets for roofs and similar structures; he forms ridges upon one side of the strip which will meet grooves at its other side, and in some cases inclines the corrugations to the edges of the sheets and strips.

3,094.—LIME AND OTHER KILNS: *W. Spencer.*—In the case of shaft-kilns, air or other combustion-supporting gas is admitted at points near the openings through which the fuel is charged. Vertical passages are made in the wall of the lower chamber and communicate between an annular channel and converging ducts which lead into the narrowed part of the kiln over the opening for charge of the fuel, whilst additional air-passages may be made at or near the narrowed part of the kiln. If the lower chamber is built into, or surrounded with earth, the annular channel is formed so as to lead into the draw-hole.

3,123.—A CONTRIVANCE FOR WINDOWS: *S. C. Taylor.*—For sliding-sashes that can be liberated from their guides, the tongues of strips joined to the lower sash will engage with grooves which guide the lower sash, diagonal slots cut in the strips engage with pins upon the sash so that one can move the tongues into or out of the grooves by moving the strips lengthwise, bolts provided with handles and screwed through nuts will lock the strips, and spring-controlled hinged guide-strips can also be employed.

3,144.—ELECTRICAL TELEPHONES: *E. W. Brown.*—The apparatus will serve for a transmitter and a receiver either combined or separate, a laminated core is wound with primary and secondary wires of which the latter is connected through the core and diaphragms with a battery, or the former may be connected to line instead, a microphone is made of lamp-black or granulated carbon, or the diaphragms may be treated chemically; the apparatus, provided with polarising magnets, is mounted within a metallic case; a tube, having at one end a contact for cutting in the battery when the telephone is being used, and leading to a mouthpiece, is pivotted in the case.

3,227.—A METHOD OF VENTILATION: *G. B. Pye.*—For producing moistened air strips of fabric are wetted in a range of superimposed ring-troughs wherein float-valves keep the water at a certain level, air flows through a casing of gauze and the strips into a middle shaft whence a fan or pump draws it for distribution by cones and trays which will serve for purposes of ventilation independently from the humidifier; in another shape a wetting-apparatus is disposed between the fan and the distributing trays and cones.

3,262.—TREATMENT OF WOOD: *American Wood Fireproofing Co.*—The object of the invention is to prevent deliquescence of the salts with which the prepared wood is impregnated. A fire-proofing solution containing borates, sulphates, and phosphates of the alkalies is recommended, with which is mixed casein rendered insoluble with the action of formaldehyde or carbonic-acid gas; or some water-repelling substance, such as an oil emulsion, or else a soluble soap may be used—fatty acids being precipitated with carbonic-acid gas, &c.

3,305.—A CIRCULAR-SAW GUARD: *D. Rigby.*—An adjustable guard that will serve for saws, and timber, of different sizes consists of a radial arm that can be raised or lowered, and has at its end a slotted plate on to which the riving-knife is adjustably bolted. A slotted plate (which can be set back accordingly with the size of the timber) and a lower end-piece having a roller hinged to the slotted plate constitute a front guard, which is to be folded backwards when the entire depth of the saw is needed for use.

3,331.—A CONTRIVANCE FOR USE WITH WATER PIPES: *A. Nüesch-Saxer and R. Nüesch.*—To obviate freezing of water in pipes they are emptied by means of a double valve which is mounted upon a hollow spindle that is joined to the service pipe with a connecting-box, as water from the main supply flows through the upper part of the valve and an aperture between the valve-faces it reaches the spindle, which can be lifted with a handle so as to close that portion of the valve whereupon the water flows away from the service pipe through the lower part of the valve.

3,349.—PAINTERS' AND SIMILAR BRUSHES: *Verlinigte Pinselfabriken.*—The lower ends of the bristles are clamped with a cap or ferrule made of sheet-metal which is then secured within the fixed socket of the handle with a wire that squeezes the sides of the socket into a groove fashioned in the cap.

3,371.—A SWITCH FOR ELECTRICAL HEATING: *E. F. Porter.*—A compound switch is devised for regulating an air-heating mechanism which embodies a fan driven by electricity and electrically-heated wires (as specified in No. 5,595 of 1891) wherein the heated wires are carried by the fan. The current is caused to flow to an insulated pivot on which are mounted two hand-switches, whereof one, being jointed, and having a spring, can be moved with its handle towards the right so as to effect a quick break between its inner portion and a contact-stud connected with the heating wires; when that switch is moved to the contact for conducting current to the heating-wires, it impels the other switch to the first of a set of studs that will make contact with the other switch and so starts the motor of the fan. The latter switch can be moved to form contact with the set of studs that are connected through resistances to the motor of the fan, the former switch being left unmoved. When the latter switch has been moved towards the right hand for a disconnexion of the motor it at the same time moves a lever that projects from the first-named contact-stud, and a spring which forces the two switches asunder thereupon establishes a quick break.

3,378.—A VENTILATING-DEVICE FOR WASTE WATER PIPES: *C. Fürer.*—In order that the water may not be drawn out from the intercepting trap, an air inlet valve which will open automatically is provided for a tapped ventilating-device; the valve casing is mounted upon the free leg of an angular pipe which is inserted into the waste pipe at the rear of the water seal and is fitted with a bell valve dipped into glycerine or a non-volatile liquid contained in a groove of the casing open underneath for the maintenance of a vapour-tight seal, the entrance of water is obstructed with a plate, and gas-tight joints are made.

3,413.—COMBINED STOVES AND FIREPLACES: *H. Steven and J. Colquhoun.*—For a close stove and an open range combined a part of the fire-cover is hinged at the back and will fall down the inclined flanges of another plate when the cover is pushed backwards, so as to afford a free passage for the flue, but when it is drawn forwards the hinged part will, by reason of the inclines, assume a horizontal position, and the entrance to the flue will be covered by the vertical flange of the plate or cover; other inclines cause the entire fire-cover to rise as it is being forced backwards and to fall when it is pulled forwards, rebated diagonal guide-slides upon the underside of the hot-plates at either side of the fire keep it in its place; the invention, which may be applied also to portable ranges, provides for a closing of the lower portion of the stove with a plate that runs in slotted brackets so as to form a rest, shelf, or toasting-rack, and for directing the ashes into the ashpan by means of the inclination of the hinged upper part of the door that controls the air supply.

3,423.—A DISCHARGE-VALVE AND OTHER FITTINGS FOR WATER-CLOSETS: *W. F. Propert.*—In order to ensure the discharge and flushing of the basin at the same time the inventor joins a collapsible chamber (at the bottom of the basin) which carries a valve to a diaphragm or piston pump by means of one pipe, and with another pipe joins the piston pump to the flushing pipe. Under normal conditions a spring keeps the diaphragm depressed, but as the latter rises it exhausts the air from within the chamber so as to impel either water or air into the flushing pipe and to start the siphon, the gradual return of the valve upon its seating is effected by means of an auxiliary time-valve placed beneath the piston pump.

3,436.—A METHOD OF PAINTING UPON SURFACES: *H. Ruszndk.*—The invention relates to the painting of designs in vertical lines upon walls and other extended surfaces; a stand is fitted with horizontal shafts, having sleeves in which slide rods arranged in pairs and carrying yokes for pattern-rollers, the rods being joined together with links and sockets; the colour is supplied to the rollers from brushes on the yokes, and the rollers are fitted with raised porous surfaces made of cloth or felt, or of felt laid upon embossed rolls.

3,472.—APPARATUS FOR HEATING BATHS: *T. Law.*—A hot-air or vapour-heating contrivance for cabinet baths comprises a gas or spirit lamp or stove of which the cover is closed at its top, and which has a horizontal pierced diaphragm. If the appliance is to be put in the bath some radial tubes are inserted into the hood of the heater. When it is used from without a pierced pipe that is held up inside the bath conveys the hot air or vapour, both the hood and the delivery pipe being jacketted.

3,528.—TUBES FOR LEVELS: *J. J. Hicks.*—The inventor seeks to obviate the bursting of the tube through the expansion of the contained fluid by heat. He fills it in part with solid matter such as balls, beads, &c, of metal, pottery, glass, and other resistant materials.

MEETINGS.

SATURDAY, JUNE 22.

British Institute of Certified Carpenters.—Visit to Hampton Court Palace. 3 p.m.

WEDNESDAY, JUNE 26.

Builders' Foremen and Clerks of Works' Institution.—Half-yearly meeting of the directors. 8 p.m.

SATURDAY, JUNE 29.

Architectural Association.—Visit to Colney Chapel Convent, St. Albans.

SOME RECENT SALES OF PROPERTY:

ESTATE EXCHANGE REPORT.

June 3.—By HEPPER & SONS (at Ripon).
Markington, &c., Yorks.—Farnley Grange Farm, 28 a. 3 r. 9 p., f. £1,670
June 6.—By J. R. EVE & SON (at Rushden).
Wymington, Beds.—The Lodge Farm, 184 a. 1 r. 27 p., f. 1,480
By LANGRIDGE & FREEMAN (at Maidstone).
Chatham, Kent—Parts of White's Wood and Bradfield Wood, 16 a. 3 r. 8 p., f. 300
Robin Hood Farm, 291 a. 3 r. 29 p., f. 2,465
Aylesford, Kent.—Taddington Wood, &c., 150 a. 2 r. 22 p., f. 1,325
Boxley, Kent.—Enclosures of woodlands, 65 a. 2 r. 11 p., f. 815
Yalding, Kent.—Five freehold cottages 630
By SEDGWICK, SON, & WEALL (at Uxbridge).
Ruislip, Middlesex.—St. Catharine's End, freehold cottage, farm buildings, and 7 a. 0 r. 5 p. 850
Bury-st., The Berries, f., e.r. 20*l.* 285
Harefield, Middlesex.—The Hollies, and 1 a. 3 r. 20 p., f., r. 63*l.* 1,370
June 7.—Messrs. SPELMAN (at Norwich).
Norwich.—Newmarket-rd., three building sites, f. 34 to 44 (even), Northumberland-st., f. 300
By H. F. RUSSELL & SON (at Leominster).
Eardisland, Hereford.—The Twyford Estate, 176 a. 3 r. 26 p., f. 720
By D. A. H. PRICE (at Clacton).
Clacton-on-Sea, Essex.—Old-rd., seven plots of building land, f. 8,400
By A. C. LOVEYS (at Exeter).
Drewsteignton, Devon.—Wallon and Weir Mill Estate, 143 a. 3 r. 13 p., f. 750
By JONES, LANG, & CO.
Bishopsgate.—40 and 41, Bishopsgate-st. Without and 1, Victoria-av., f., r. 960*l.* 3,300
City of London.—91, Fore-st., u.t. 80 yrs., g.r. 200*l.*, r. 605*l.* 20,000
30, Monkwell-st., u.t. 27½ yrs., g.r. 50*l.*, r. 375*l.* 3,000
Finsbury Park.—31, Woodstock-rd., u.t. 66 yrs., g.r. 6*l.* 10s., r. 36*l.* 2,300
By TOPLIS & HARDING.
Paddington.—Bishop's-rd., i.g.r. 80*l.*, u.t. 37½ yrs., g.r. 2*l.* 370
Gloucester-gardens, i.g.r. 25*l.*, u.t. 37½ yrs., g.r. 2*l.* 1,270
June 8.—By C. R. MORRIS, SONS, & PEARD (at Taunton).
Trull, &c., Somerset.—Lower Comeytrowe Farm, 137 a. 3 r. 37 p., f. 355
Galmington, Somerset.—House, cottage, and 8 a. 0 r. 31 p., c. 8,500
Otterford, Somerset.—Tithe rent charges of 17*l.* 18s. 1,265
By J. CARTER JONAS & SONS (at Cambridge).
Cambridge.—Coldham's-lane, two enclosures of building land, 32 a. 2 r. 11 p., f. and c. 250
June 10.—By FAREBROTHER, ELLIS, & CO.
Hampstead.—Pond-st., a freehold building site, area 9,800 ft. 1,600
By WM. HOUGHTON.
Cavendish-sq.—13, Welbeck-st. and 19, Little Welbeck-mews, u.t. 31 yrs., g.r. 70*l.*, r. 310*l.* .. 1,500
By INMAN & CRIER.
Maida Vale.—203, Sutherland-av., u.t. 38 yrs., g.r. 3*l.* 11s. 6d., r. 70*l.* 2,200
By LAING WATERS, FURNIVALL, & CO.
Kensington.—3, 5, and 7, Kinnoul-rd., f., e.r. 300*l.* 785
By MULLETT, BOOKER, & CO.
Edgware-rd.—Nos. 412 and 414, u.t. 24½ yrs., g.r. 67*l.*, r. 225*l.* 2,850
By ALEX. PHILLIPS & CO.
Kilburn.—26, Messina-av., u.t. 84½ yrs., g.r. 9*l.* 10s., e.r. 50*l.* 1,140
13 and 21, Plympton-rd., u.t. 88½ yrs., g.r. 19*l.* 9s. 495
12, Burton-rd., u.t. 83 yrs., g.r. 10*l.*, r. 55*l.* 1,010
Willesden.—49, Cobbold-rd., f. 550
Brompton.—48, St. Oswald's-rd., u.t. 61 yrs., g.r. 10*l.*, r. 50*l.* 295
Kensal Rise.—43, 49 to 57 (odd), Earlsmead-rd., u.t. 88 and 87 yrs., g.r. 30*l.* 445
By RAVENSHEAR & MASSEY.
Kilburn.—10, Malvern-rd., u.t. 62 yrs., g.r. 8*l.*, r. 55*l.* 1,185
By RENTON & RENTON (at Harrogate).
Birstwith, &c., Yorks.—Crow Trees Farm, 83 a. 2 r. 24 p., c. 650
Slack Dyke Farm, 7 a. 0 r. 2 p., c. 2,660
Staupe's House Farm, 14 a. 1 r. 18 p., c. 635
By C. B. SMITH, SAPP, & WYATT (at Fareham).
Titchfield, Hants.—Bedbrook's Paddock, 0 a. 3 r. 20 p., f. 870
Stephen Bridge Enclosure, 7 a. 1 r. 13 p., f. .. 190
By CURTIS & SHARP (at East Ham).
East Ham.—St. Olave's-rd., &c., 43 plots of freehold building land (in lots) 600
June 11.—By DAVID BURNETT & CO.
Blackheath.—Shooter's Hill-rd., i.g.r.'s 68*l.*, u.t. 58½ yrs., g.r. nil 1,713
Hervey-rd., i.g.r.'s 30*l.*, u.t. 58½ yrs., g.r. nil .. 1,415
Sydenham.—Wells-rd., &c., f.g.r.'s 24*l.* 16s., reversions in 52 and 54 yrs. 615
By DEBENHAM, TEWSON, & CO.
Purley, Surrey.—Foxley and 18 a. 1 r. 12 p., f. .. 585
Camden Town.—89, York-rd., u.t. 59¾ yrs., g.r. 5*l.*, e.r. 45*l.* 7,000
Chislehurst, Kent.—2, Summer Hill-villas, f., r. 65*l.* 460
Godstone, Surrey.—High-rd., Oakhurst and 3 a. 0 r. 24 p., f., r. 150*l.* 750
By FRASER & HEIGH.
Holloway.—133, Tufnell Park-rd., u.t. 67 yrs., g.r. 8*l.*, r. 45*l.* 2,000
By WALTER HALL.
Stoke Newington.—95 and 97, Shakespeare-rd., f., r. 85*l.* 490
1,115

By HAMPTON & SONS.
Hampstead.—East Heath-rd., Foley House, area ½ a., u.t. 78 yrs., g.r. 150*l.*, r. 200*l.* £500
1 and 2, Foley-av., u.t. 78 yrs., g.r. 60*l.*, r. 363*l.* 4,250
Needham Market, Suffolk.—Uvedale Hall and 8 a., f. 3,000
Uvedale Farm, 25 a., f. 1,000
Coddenham-rd., two freehold cottages 250
Chelsea.—31, Sydney-st., f., r. 65*l.* 1,100
By HARLAND & SON.
Edgware, Middlesex.—High-st., the Manor Park Building Estate, 3 a. 1 r. 35 p., f. 2,400
By READ & LINDFIELD.
Ealing.—11, Hartington-rd., u.t. 74 yrs., g.r. 6*l.*, r. 42*l.* 440
By ROGERS, CHAPMAN, & THOMAS.
South Kensington.—7, Evelyn-gardens, u.t. 72 yrs., g.r. 25*l.*, e.r. 200*l.* 2,600
17, Cathcart-rd., u.t. 47½ yrs., g.r. 9*l.*, r. 55*l.* .. 530
By JAMES HARRIS & SONS (at Winchester).
Martyr Worthy, Hants.—The Shroner House Estate, 482 a. 1 r. 39 p., f. 6,000
By ALFRED RICHARDS (at Enfield Highway).
Enfield Highway.—6 and 7, Market-pl., f., r. 65*l.* 880
Albany-rd., f.g.r. 8*l.*, reversion in 91 yrs. 160
30 and 32, St. Stephen's-rd., f. 295
By FLEURET, SONS, & ADAMS (at Masons' Hall Tavern).
Hackney.—Wick-rd., The General Gordon (off-licence), u.t. 58½ yrs., g.r. 6*l.*, with goodwill 2,020
By ORGILL, MARKS, & ORGILL (at Masons' Hall Tavern).
Redhill, Surrey.—Laker's Hotel, u.t. 43 yrs., g.r. 20*l.*, with goodwill 9,490
By J. C. PLATT (at Hammersmith).
Hammersmith.—81, Shaftesbury-rd., u.t. 52 yrs., g.r. 6*l.* 465
Shepherd's Bush.—10, Ellingham-rd., u.t. 86 yrs., g.r. 5*l.*, r. 34*l.* 380
June 12.—By ARTHUR BLACKFORD.
Croydon.—Lennard-rd., Lennard House, f., r. 60*l.* 1,055
By H. DONALDSON & SON.
Clapton.—17A, College-av., u.t. 80 yrs., g.r. 7*l.* 10s., r. 32*l.* 300
Kingsland.—4, Englefield-rd., u.t. 24½ yrs., g.r. 5*l.*, r. 32*l.* 245
By P. & G. GREEN.
Harlesden.—27, Greenhill-rd., u.t. 87 yrs., g.r. 7*l.* 10s., e.r. 45*l.* 350
Acton.—89, Bollo Bridge-rd., u.t. 75½ yrs., g.r. 6*l.* 155
Stepney.—Dempsey-st., i.g.r. 21*l.*, u.t. 12 yrs., g.r. 12*l.* 115
Blackfriars.—95, Stamford-st., u.t. 8 yrs., g.r. 14*l.*, e.r. 85*l.* 125
By GUDGEON & SONS.
Westmeon, Hants.—Hall Place and 26 a. 0 r. 22 p., f. 5,000
By MESSRS. JEFFRIES.
Twickenham.—Colne-rd., The Wheatsheaf Brewery, u.t. 58 yrs., r. 120*l.* 6,000
By MANSELL & ROWE.
Norwood.—7, Oxford-rd., f. 340
155, Hamilton-rd., u.t. 950 yrs., g r. 2*l.* 225
2, Anerley-grove, u.t. 53 yrs., g.r. 8*l.*, r. 20*l.* .. 130
15 and 17, Farquhar-rd., u t. 59 yrs., g.r. 2*l.*, e.r. 130*l.* 855
By MILLAR, SON, & Co.
Mile End.—62 to 70 (even), Nicholas-st., area 4,500 ft., f. r. 90*l.* 1,410
By W. R. NICHOLAS & Co.
Ingatestone, Essex.—Fryerning Grange and 42 a. 2 r. 2 p., f. 4,000
Cranleigh, Surrey.—Redhurst and 71 a. 0 r. 8 p., f. 7,350
By S. WALKER & SON.
Holborn.—Nos. 148 and 149, also 1 and 2, Holborn-bdgs., area 7,000 ft., f. 25,000
By DOUGLAS YOUNG & Co.
Stockwell.—3, Willington-rd., u.t. 36 yrs., g.r. 4*l.* 10s. 200
Clapham.—2, Albert-sq. and 3, Albert-sq.-mews, u.t. 44 yrs., g.r. 5*l.* 640
Pimlico.—26, Bessborough-st., u.t. 32 yrs., g.r. 10*l.*, e.r. 75*l.* 525
By BAXTER, PAYNE, & LEPPER.
Westerham Hill, Kent.—Southwood and 60½ a., f. 2,000
Bexley Heath, Kent.—1 and 2, Victoria-villas, f., r. 50*l.* 600
By T. WALKER & SONS (at Driffield).
Skipsea, Yorks.—Dringhoe Grange Farm, 237 a. 2 r. 17 p., f. and c. 7,000
By BALCH & BALCH (at Camden Town).
Kentish Town.—86, Islip-st., u.t. 48 yrs., g.r. 8*l.* 8s., r. 40*l.* 395
Holloway.—1, 3, 26, 28, 43, and 45, Poyning's-rd., u.t. 70 yrs., g.r. 31*l.*, r. 187*l.* (in lots) 1,990
By LOUND & HOWITT (at Horse Shoe Hotel).
Richmond, Surrey.—Hill-st., the White Hart p.h., u.t. 18½ yrs., r. 480*l.*, with goodwill 1,210
By WM. WESTON (at Paddington).
Paddington.—12, Lancefield-st., u.t. 72 yrs., g.r. 5*l.*, r. 30*l.* 500
25, Clifton-villas, u.t. 49 yrs., g.r. 15*l.*, r. 65*l.* .. 495
61, Walterton-rd., u.t. 62 yrs., g.r. 9*l.* 545
Westbourne-pk.—85, 87, and 89, Cornwall-rd., u.t. 63½ yrs., g.r. 27*l.* 1,630
Kensal Rise.—10, Greyhound-rd., u.t. 81 yrs., g.r. 5*l.* 240
June 13.—By DANIEL WATNEY & SONS.
Beddington, Surrey.—Foxley-lane, enclosures of land, 190 a. 1 r. 16 p., f. 23,000
Woodcote-rd., two cottages and 2 a. 2 r. 7 p., f. 1,040
Regent's Park.—17, Cumberland-ter., u.t. 24 yrs., g.r. 172*l.* 10s. 1,000
By R. W. DENYER & Co.
Staplehurst, Kent.—Meadhurst and 4 a. 2 r. 38 p., f. 500
By DOUGLAS DEVERELL.
Brondesbury.—146, Maygrove-rd., u.t. 73 yrs., g.r. 8*l.* 450
Hampstead.—63, Gascony-av., u.t. 80 yrs., g.r. 7*l.* 455
By FAREBROTHER, ELLIS, & Co.
Camden Town.—148 and 150, High-st., u.t. 67 yrs., g.r. 88*l.*, r. 400*l.* 5,200
By C. C. & T. MOORE.
Aldgate.—59, Middlesex-st., f., r. 150*l.* 2,450
Whitechapel.—134 to 142 (even), Vallance-rd., u.t. 17½ yrs., g.r. 25*l.* 850
Bethnal Green.—5, 7, 9, and 11, St. Peter-st., u.t. 12 yrs., g.r. 13*l.* 350
Homerton.—55 and 56, Churchill-rd., f. 825
Poplar.—165 to 171 (odd), Manchester-rd., u.t. 49½ yrs., g.r. 20*l.* £620
By H. ROW.
Roehampton.—Alton-rd., two plots of building land, f. 720
By NEWBON, EDWARDS, & SHEPHARD.
Highbury.—5, 9, 11, 17, and 21, Battledean-rd., u.t. 84 yrs., g.r. 40*l.* 10s., r. 214*l.* 2,090
Bowes Park.—2 to 18 (even), Marlborough-rd., u.t. 89 yrs., g.r. 43*l.* 11s. 9d. 1,960
5 to 8, Thorold-rd., u.t., 91 yrs., g.r. 17*l.* 12s. .. 865
Highbury.—37, Aubert Park, u.t. 76 yrs., g.r. 3*l.*, r. 45*l.* 500
Highbury Hill, i.g.r. 10*l.*, u.t. 76 yrs., g.r. 3*l.* .. 145
Pentonville.—24, 25, and 26, Hermes-st. and 39 to 44, Henry-st., u.t. 37 yrs., g.r. 210*l.* 1,820
Hoxton.—42 to 45, Ailerton-st., u.t. 6¾ yrs., g.r. 13*l.* 10s. 165
Westminster.—40 to 46 (even), Horseferry-rd., 1 to 5, Carpenter-st., and 39, Romney-st., u.t. 10 yrs., g.r. 170*l.* 605
48, 50, and 52, Horseferry-rd. and 8 to 12, Carpenter-st., u.t. 10 yrs., g.r. 130*l.* 350
30, 38 to 46 (even), Romney-st., u.t. 10 yrs., g.r. 90*l.* 500
By STIMSON & SONS.
Camberwell.—1 to 9 (odd), 15, 17, 27, and 29, Knatchbull-rd., u.t. 74½ yrs., g.r. 51*l.*, r. 398*l.* (in lots) 3,995
1 to 17, 19, 19A, 20, 21, and 24, McDowall-rd., u.t. 74½ yrs., g.r. 51*l.* 10s., r. 751*l.* 12s. 8,610
Camberwell.—30, County-grove, u.t. 70½ yrs., g.r. 5*l.*, r. 42*l.* 530
18 and 20, Penford-st., u.t. 66¼ yrs., g.r. 14*l.*, r. 90*l.* 910
2, Paulet-rd., u.t. 66¼ yrs., g.r. 2*l.*, r. 45*l.* 550
113 to 119 (odd), and 129, Burton-rd., u.t. 73 yrs., g.r. 32*l.* 10s., r. 223*l.* 2,245
By JOSEPH STOWER.
Balham.—117, 121 to 129 (odd), 137, and 139, Bedford Hill, u.t. 64 yrs., g r. 112*l.* 10s., r. 470*l.* (in lots) 2,910
Send, Surrey.—Enclosure of meadow land, 15 a. 1 r. 29 p., f. 450
By J. A. & W. THARP.
Holborn.—70, Red Lion-st., f., r. 100*l.* 2,270
Walthamstow.—123, 125, and 127, Chelmsford-rd., also f.g.r. 4*l.*, reversion in 80 yrs. 675
Bethnal Green.—12, 13, and 14, Satchwell-st., u.t. 48 yrs., g.r. 13*l.* 10s. 750
Holloway.—182 and 184, Tufnell Pk.-rd., u.t. 66 yrs., g.r. 20*l.* 1,330
Hackney.—102 to 110 (even), Goldsmith's row, and 6 to 10, Oakford-pl., u.t. 22 yrs., g.r. 12*l.* 1,675
Leyton.—19 to 27 (odd), Manby-rd., u.t. 77 yrs., g.r. 17*l.* 10s. 760
June 14.—By W. A. BLAKEMORE.
Catford.—1, 3, and 5, Jutland-rd., u.t. 92½ yrs., g.r. 15*l.* 1,640
19 to 39 (odd), Jutland-rd., u.t. 92½ yrs, g.r. 55*l.* 2,620
79 to 85 (odd), Engleheart-rd., u.t. 92½ yrs., g.r. 20*l.* 970
80 to 92 (even), Brownhill-rd., u.t. 92½ yrs., g.r. 42*l.* 1,895
141 and 143, Brownhill-rd., u.t. 92½ yrs., g.r. 12*l.* 650
Old Kent-rd.—356, East-st., u.t. 87 yrs., g.r. 10*l.* 300
By J. J. HILL & WEAVER.
Kilburn.—21, Kilburn-sq., u.t. 23 yrs., g.r. 7*l.*, r. 40*l.* 225
Enfield Lock.—1, Binge-ter., f. 150
By W. MARTIN & Co.
Dulwich.—50, Ashbourne-grove, u.t. 69 yrs., g.r. 6*l.*, r. 32*l.* 325
57, Glengarry-rd., u.t. 79 yrs., g.r. 6*l.* 6s., e.r. 32*l.* 290
By MONEY & JOHNSTON.
Penge.—91, Maple-rd., u.t. 64 yrs., g.r. 12*l.* 12s., r. 51*l.* 280

Contractions used in these lists.—F.g.r. for freehold ground-rent; l.g.r. for leasehold ground-rent; i.g.r. for improved ground-rent; g.r. for ground-rent; r. for rent; f. for freehold; c. for copyhold; l. for leasehold; e.r. for estimated rental; u.t. for unexpired term; p.a. for per annum; yrs. for years; st. for street; rd. for road; sq. for square; pl. for place; ter. for terrace; cres. for crescent; yd. for yard.

PRICES CURRENT OF MATERIALS.

*** Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

BRICKS, &c.

	£ s. d.			
Hard Stocks	1 14 0	per 1,000	alongside, in river	
Rough Stocks and Grizzles	1 11 0	,,	,,	,,
Facing Stocks ...	2 12 0	,,	,,	,,
Shippers	2 8 0	,,	,,	,,
Flettons	1 8 6	,,	at railway depot.	
Red Wire Cuts ..	1 14 6	,,	,,	,,
Best Fareham Red	3 11 0	,,	,,	,,
Best Red pressed Ruabon Facing.	5 5 0	,,	,,	,,
Best Blue Pressed Staffordshire ..	4 4 6	,,	,,	,,
Do., Bullnose ...	4 9 0	,,	,,	,,
Best Stourbridge Fire Bricks	4 2 6	,,	,,	,,
GLAZED BRICKS.				
Best White and Ivory Glazed Stretchers	13 0 0	,,	,,	,,
Headers	12 0 0	,,	,,	,,
Quoins, Bullnose, and Flats	17 0 0	,,	,,	,,
Double Stretchers	19 0 0	,,	,,	,,
Double Headers..	16 0 0	,,	,,	,,
One Side and two Ends	19 0 0	,,	,,	,,
Two Sides and one End	20 0 0	,,	,,	,,
Splays, Chamfered, Squints	20 0 0	,,	,,	,,
Best Dipped Salt Glazed Stretchers and Headers ..	12 0 0	,,	,,	,,

PRICES CURRENT (*Continued*).

BRICKS, &c.

	£ s. d.			
Quoins, Bullnose, and Flats	14 0 0	per 1,000	at railway depôt.	
Double Stretchers	15 0 0	,,	,,	,,
Double Headers...	14 0 0	,,	,,	,,
One Side and two Ends	15 0 0	,,	,,	,,
Two Sides and one End	15 0 0	,,	,,	,,
Splays, Chamfered, Squints	14 0 0	,,	,,	,,
Seconds Quality				
White and Dipped Salt Glazed ...	2 0 0	,,	less than best	

	s. d.	
Thames and Pit Sand	7 3	per yard, delivered.
Thames Ballast	6 0	,, ,,
Best Portland Cement	35 0	per ton, delivered.
Best Ground Blue Lias Lime..	25 6	,, ,,

NOTE.—The cement and lime is exclusive of the ordinary charge for sacks.

Grey Stone Lime	13s 6d.	per yard, delivered
Stourbridge Fire-clay in sacks,	28s. od.	per ton at rly. dpt

STONE.

	s. d.		
Ancaster in blocks	2 0	per ft. cube, deld. rly. depôt.	
Bath ,, ...	1 7	,,	,,
Farleigh Down Bath ..	1 8	,,	,,
Beer in blocks	1 6½	,,	,,
Grinshill ,, ...	1 10	,,	,,
Brown Portland in blocks	2 2	,,	,,
Darley Dale in blocks..	2 1½	,,	,,
Red Corsehill ,,	2 5	,,	,,
Red Mansfield ,,	2 4½	,,	,,
Hard York in blocks ..	2 10	,,	,,
Hard York 6 in. sawn both sides landings, to sizes (under 40 ft. sup.)	2 8	per ft. super. at rly. depôt	
,, ,, 6 in. Rubbed Ditto..	3 0	,,	,,
,, ,, 3 in. sawn both sides slabs (random sizes)	1 3	,,	,,
,, ,, in self-faced Ditto	2 0½	,,	,,
Hopton Wood (Hard Bed) in blocks	2 3	per ft. cube. deld. rly. depôt.	
,, ,, ,, 6-in sawn both sides landings	2 7	per ft. super. deld. rly. depôt.	
,, ,, ,, 3-in. do.	1 2½	,,	,,

SLATES.

in. in.	£ s. d.		
20×10 best blue Bangor ..	11 5 0	per 1000 of 1200 at ry. dep.	
,, best seconds ,,	10 15 0	,,	,,
16× 8 best ,,	6 2 6	,,	,,
20×10 best blue Portmadoc	10 18 0	,,	,,
16× 8 best blue Portmadoc	6 0 0	,,	,,
20×10 best Eureka unfading green.....	11 2 6	,,	,,
16× 8 ,, ,,	6 15 0	,,	,,
20×10 Permanent green	10 0 0	,,	,,
16× 8 ,, ,,	5 12 6	,,	,,

TILES.

	s. d.		
Best plain red roofing tiles..	41 6	per 1,000 at rly. depôt.	
Hip and valley tiles...	3 7	per doz.	,, ,,
Best Broseley tiles	48 6	per 1,000	,, ,,
Hip and valley tiles....	4 0	per doz.	,, ,,
Best Ruabon Red, brown or brindled Do. (Edwards)	57 6	per 1,000	,, ,,
Do. ornamental Do.	60 0	,,	,, ,,
Hip tiles.....	4 0	per doz.	,, ,,
Valley tiles.....	3 9	,,	,, ,,
Best Red or Mottled Staffordshire Do. (Peakes) .	50 9	per 1,000	,, ,,
Hip tiles	4 1	per doz.	,, ,,
Valley tiles.....	3 8	,,	,, ,,

WOOD.

BUILDING WOOD.—YELLOW.

	At per standard. £ s. d.	£ s. d.
Deals: best 3 in. by 11 in. and 4 in. by 9 in. and 11 in.	16 10 0	18 0 0
Deals: best 3 by 9	14 10 0	15 10 0
Battens: best 2½ in. by 7 in. and 8 in. and 3 in. by 7 in. and 8 in.....	12 0 0	13 0 0
Battens: best 2½ by 6 and 3 by 6 ..	0 10 0	less than 7 in. and 8 in.
Deals seconds	0 0	less than best
Battens: seconds	0 10 0	,, ,, ,,
2 in. by 4 in. and 2 in. by 6 in. ..	9 10 0	11 0 0
2 in. by 4½ in. and 2 in. by 5 in.	9 0 0	10 10 0
Foreign Sawn Boards—		
1 in. by 1½ in. by 1½ in.	10 0	more than battens.
¾ in.	1 0 0	more than battens.

At per load of 50 ft.

Fir timber: Best middling Danzig or Memel (average specification)	4 10 0	5 0 0
Seconds	4 5 0	4 10 0
Small timber (8 in. to 10 in.)	3 12 6	3 15 0
Swedish balks.....	2 15 0	3 0 0
Pitch pine timber (35 ft. average)..	3 10 0	4 0 0

JOINERS' WOOD.

At per standard.

White Sea: First yellow deals, 3 in. by 11 in.....	27 10 0	28 10 0
3 in. by 9 in.	24 0 0	25 0 0
Battens, 2½ in. and 3 in. by 7 in.	20 0 0	21 0 0
Second yellow deals, 3 in. by 11 in.	22 10 0	24 0 0
,, ,, 3 in. by 9 in.	20 0 0	21 0 0
Battens, 2½ in. and 3 in. by 7 in.	16 10 0	18 0 0
Third yellow deals, 3 in. by 11 in. and 9 in.	16 10 0	18 0 0
Battens, 2½ in. and 3 in. by 7 in.	13 10 0	14 10 0
Petersburg: first yellow deals, 3 in. by 11 in.	25 0 0	26 0 0
Do. 3 in. by 9 in.	22 0 0	23 0 0
Battens.....	16 10 0	17 10 0
Second yellow deals, 3 in. by 11 in.....	18 10 0	20 0 0
Do. 3 in. by 9 in.	17 0 0	18 0 0
Battens.....	14 0 0	14 10 0
Third yellow deals, 3 in. by 11 in.....	15 0 0	16 10 0
Do. 3 in. by 9 in.	14 0 0	14 10 0
Battens.....	12 10 0	13 10 0
White Sea and Petersburg:—		
First white deals, 3 in. by 11 in..	15 10 0	16 10 0
,, ,, ,, 3 in. by 9 in. ..	14 10 0	15 10 0

| See also next page.

COMPETITIONS, CONTRACTS, AND PUBLIC APPOINTMENTS.

(For some Contracts, &c., still open, but not included in this List, see previous issues.)

COMPETITIONS.

Nature of Work.	By whom Advertised.	Premiums.	Designs to be delivered
*Baths	Chelsea Borough Council	100 guineas ; 50 guineas ; 30 guineas	Oct. 1

CONTRACTS.

Nature of Work or Materials.	By whom Required.	Forms of Tender, &c., Supplied by	Tenders to be delivered
School, &c., Haverigg, Cumberland	Millom School Board	Settle & Farmer, Architects, Board Offices, Millom	June 25
Farmhouse, Buda Farm, Little Torrington, Devon	Mr. J. C. Moore-Stevens	Groves & Co., Surveyors, Bideford	do.
Laying Pipes (5 miles)	Barnsley Corporation	J. H. Taylor, Borough Surveyor, Barnsley	do.
Car Shed, &c., North End	Portsmouth Corporation	E. Rotter, Civil Engineer, Town Hall, Portsmouth	do.
Additions, &c., to Dyehouse, Gomersal, Yorks.	Messrs. T. Burnley & Sons, Ltd.	W. H. D. Horsfall, Architect, Tower Chambers, Halifax	do.
School, St. Luke's-terrace	Brighton School Board	T. Sampson & Son, Surveyors, Ship-street, Brighton	do.
Extensions, City Art Gallery	Manchester Corporation	City Surveyor, Town Hall, Manchester	do.
Warehouse, &c., Westgate-street	Halifax Corporation	J. Lord, Civil Engineer, Town Hall, Halifax	do.
*Granite, &c.	Barnet U.D.C.	See Advertisement	do.
*Road Making, &c., Works	Willesden District Council	Engineer, Public Offices, Dyne-road, Kilburn	do.
Fire Station, &c., Cumberland Basin	Bristol Corporation	T. H. Yabbicom, Civil Engineer, 63, Queen-square, Bristol	June 26
Reservoir, Wortley	Barnsley Corporation	T. & C. Hawksley, Civil Engineers, 30, Great George-street, S.W.	June 27
Alterations to Mill, Crowle, near Doncaster		J. H. Lee, Board Schools, Crowle	do.
Additions to Council Offices	Broadstairs, &c., U.D.C.	H. Hurd, Civil Engineer, Council Offices, Broadstairs	do.
Police Station, &c., Norton, Yorks	Standing Joint Committee	A. Beaumont, Civil Engineer, County Hall, Beverley	do.
Additions to School, Porth	Glamorgan County Council	T. M. Franklin, County Offices, Cardiff	do.
Restoration of Parish Church, Houghton-le-Spring		J. Bendelow, 16, Nesham-place, Houghton-le-Spring, co. Durham	June 28
Residence, Forteath-avenue, Elgin, N.B.		R. B. Pratt, Architect, Elgin	do.
Kerbing, Flags, &c.	Ashton-in-Makerfield U.D.C.	J. W. Liversedge, Surveyor, Council Offices, Ashton	June 29
Rebuilding Bridge, Lachmere Brook, Portobello	Willenhall U.D.C.	T. E. Fellows, Civil Engineer, Town Hall, Willenhall	do.
Twelve Dwellings	Wrotham (Kent) U.D.C.	J. Sharp, Surveyor, Borough Green, Wrotham	do.
Business Premises, Mill-street, Clonakilty, Ireland		H. O'Brien, 16, Mill-street, Clonakilty	do.
School, West-lane, Keighley	Northumberland County Council	Moore & Crabtree, Architects, York Chambers, Keighley	do.
Widening Bardon Hill Bridge		J. A. Bean, Surveyor, Moot Hall, Newcastle	do.
School, Braithwaite, Yorks		F. Allen, Bank Chambers, Doncaster	do.
Pair Villas, Buarth Mawr, Aberystwyth		G. Jones & Son, Architects, 17, George-street, Aberystwyth	do.
Nine Houses, Victor-terrace, Halifax		M. Hall, Architect, Halifax	do.
Grammar School, Beverley		Botterill & Co., Architects, 23, Parliament-street, Hull	do.
*250 Tons Portland Cement	Wandsworth Borough Council	Council House, East Hill, Wandsworth	July 1
*Widening, &c., of Green Lane Bridge	Great Western Railway	Engineer, Paddington Station	July 2
*Making-up Roads	Tottenham U.D.C.	W. H. Prescott, 712, High-road, Tottenham	do.
Electric Lighting Buildings	Aldershot U.D.C.	N. F. Dennis, Civil Engineer, Aldershot	do.
Sewer Culverts (1½ miles)	Croydon Town Council	E. Mawdesley, Town Hall, Croydon	do.
Additions to Workhouse Laundry	Kingston-on-Thames Guardians	W. H. Hope, Civil Engineer, Hampton Wick	do.
*School	Tyldesley-with-Shakerley U.D.C.	See Advertisement	do.
*Road Making and Paving Chaplin-street, Forest Hill	Lewisham Council	Surveyor's Department, Town Hall, Catford, S.E.	do.
*Road Making and Paving Ivy-lane, Brockley	do.	do.	do
*Offices and Buildings	Cuckfield R.D.C.	Council Offices, Haywards Heath	July 4
*Public Libraries, &c.	Camberwell Borough Council	Borough Engineer, Town Hall Camberwell	do.
Additions to Workhouse	Huntingdon Guardians	E. Borissow, Architect, 151, High-street, Huntingdon	July 5
Bridges, Lingoed	Abergavenny R.D.C.	J. Gill, Surveyor, 4, Brecon-road, Abergavenny	July 8
Police Station, Library, &c.	Leeds Corporation	Bedford & Kitson, Architects, Greek-street Chambers, Leeds	do.
*Alterations, &c., to School	Cork District Lunatic Asylum	City Engineer, Municipal-buildings, Cork	July 9
Additions to School, Youghal		H. A. Cutler, Civil Engineer, Municipal-buildings, Cork	do.
Electricity Plant	Mansfield Corporation	R. Hammond, Civil Engineer, 64, Victoria-street, S.W.	July 12
*Mortuary Buildings, &c.	Paddington Borough Council	Surveyor's Department, Town Hall, Paddington	July 15
*Sewers	Lyme Regis Town Council	Town Hall, Lyme Regis	July 25
Baptist Chapel, Victoria-street, Morecambe		A. Gorton, Architect, 24, The Crescent, Morecambe	No date
Chimney Stack, &c., Llangollen		W. R. Hague, Civil Engineer, Pentrefelin Works, Llangollen	do.
Alterations to Club, Canton, Cardiff		E. Down, Architect, 31, High-street, Cardiff	do.
Rebuilding Chapel, near Abertillery, Mon.		Rev. E. Ball, 52, Gladstone-street, Abertillery	do.
Presbytery and Schools, Redhill		W. Bevan, Architect, 12, Buckingham-street, W.C.	do.
Additions to St. Joseph's House, Hartley, Plymouth		King & Lister, Architects, 8, Princess-square, Plymouth	do.
Four Villas		H. J. Clarson, Civil Engineer, 22, Church-street, Tamworth	do.
*Whitewashing and Painting	Tamworth Corporation	J. M. Knight, 35, Bancroft-road, Mile End-road, E.	do.
*Extensions to County Asylum Buildings	Mile End Old Town Guardians	See Advertisement	do.
	Cornwall County Asylum		

PUBLIC APPOINTMENTS.

Nature of Appointment.	By whom Advertised.	Salary.	Application to be in
*Architect	Govt. Federated Malay States	3,600 dollars per annum, &c. (see advertisement)	June 29
*Surveyor and Inspector of Nuisances	Leatherhead U.D.C.	250*l.* per annum	July 1
*Highway Surveyor	Hambledon R.D.C.	125*l.* per annum	July 6
*Clerk of Works		3*l.* 10*s.* per week	No date
*Quantity Surveyor's Assistant		45*s.* per week	do.
*Assistant	Margate Corporation	2*l.* 2*s.* per week	do.

Those marked with an asterisk (*) are advertised in this Number. *Competitions, p.* iv. *Contracts, pp.* iv. vi. viii. x. *&* xxiv. *Public Appointments, pp.* xxi. *&* xxiv.

PRICES CURRENT (*Continued*).

WOOD.

	At per standard. £ s. d.	£ s. d.
White Sea and Petersburg :—		
Battens	12 10 0	13 10 0
Second white deals 3 in. by 11 in.	14 0 0	15 0 0
" " " 3 in. by 9 in.	13 0 0	14 0 0
" " battens	11 0 0	12 0 0
Pitch pine : deals	16 0 0	18 0 0
Under 2 in. thick extra	0 10 0	1 0 0
Yellow Pine—		
First, regular sizes	30 0 0	33 0 0
Broads (12 in. and up)	2 0 0	more.
Oddments	22 0 0	24 0 0
Seconds, regular sizes	24 10 0	26 10 0
Yellow Pine Oddments	20 0 0	22 0 0
Kauri Pine—		
Planks, per ft. cube	0 3 6	0 4 6

PRICES CURRENT (*Continued*).

WOOD.

	At per standard. £ s. d.	£ s. d.
Danzig and Stettin Oak Logs—		
Large, per ft. cube	0 2 6	0 3 0
Small "	0 2 3	0 2 6
Wainscot Oak Logs, per ft. cube	0 5 0	0 5 6
Dry Wainscot Oak, per ft. sup. as inch	0 0 8	0 0 7
in. do. do.	0 0 7	- - -
Dry Mahogany—		
Honduras, Tabasco, per ft. sup. as inch	0 0 9	0 0 11
Selected, Figury, per ft. sup. as inch	0 1 6	0 2 0
Dry Walnut, American, per ft. sup. as inch	0 0 10	0 1 0
Teak, per load	16 0 0	20 0 0

PRICES CURRENT (*Continued*).

WOOD.

	At per standard. £ s. d.	£ s. d.
American Whitewood Planks—		
Per ft. cube	0 2 3	0 3 0
Prepared Flooring—	Per square	
1 in. by 6 in. and 7 in. yellow, planed and shot	0 13 0	0 16 6
1 in. by 6 in. and 7 in. yellow, planed and matched	0 13 6	0 17 6
1¼ in. by 6 in. and 7 in. yellow, planed and matched	0 16 0	1 1 0
1 in. by 6 in. and 7 in. white, planed and shot	0 11 0	0 13 0
1 in. by 6 in. and 7 in. white, planed and matched	0 11 6	0 13 6
1¼ in. by 6 in. and 7 in. white, planed and matched	0 14 0	0 16 6

PRICES CURRENT (*Continued*).

JOISTS, GIRDERS, &c.

	In London, or delivered to Railway Vans, per ton. £ s. d.	£ s. d.
Rolled Steel Joists, ordinary sections	7 15 0	8 15 0
Compound Girders " "	9 10 0	10 15 0
Angles, Tees and Channels, ordinary sections	9 7 6	11 7 6
Flitch Plates	9 15 0	10 10 0
Cast Iron Columns and Stanchions, including ordinary patterns	8 5 0	10 0 0

METALS.

	Per ton, in London. £ s. d.	£ s. d.
IRON.—		
Common Bars	8 10 0	9 0 0
Staffordshire Crown Bars, good merchant quality	9 0 0	9 10 0
Staffordshire "Marked Bars"	11 10 0	- - -
Mild Steel Bars	9 0 0	10 0 0
Hoop Iron, basis price	9 10 0	10 0 0
" galvanised	16 0 0	- - -
(* And upwards, according to size and gauge.)		
Sheet Iron, Black.—		
Ordinary sizes to 20 g.	10 5 0	- - -
" " to 24 g.	11 10 0	- - -
" " to 26 g.	12 15 0	- - -
Sheet Iron, Galvanised, flat, ordinary quality.—		
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	12 15 0	- - -
" " 22 g. and 24 g.	13 5 0	- - -
" " 26 g.	14 10 0	- - -
Sheet Iron, galvanised, flat, best quality.—		
Ordinary sizes to 20 g.	16 10 0	- - -
" " 22 g. and 24 g.	17 0 0	- - -
" " 26 g.	18 10 0	- - -
Galvanised Corrugated Sheets.—		
Ordinary sizes, 6 ft. to 8 ft. 20 g.	12 15 0	- - -
" " 22 g. and 24 g.	13 5 0	- - -
" " 26 g.	14 0 0	- - -
Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. by 20 g. and thicker	12 10 0	- - -
" " 22 g. and 24 g.	13 10 0	- - -
" " 26 g.	14 10 0	- - -
Cut nails, 3 in. to 6 in. (Under 3 in. usual trade extras.)	10 10 0	- - -

PLASTER, &c.

	s. d.	
Coarse Plaster	30 0	per ton delivered.
Fine "	38 0	" "
Coarse Keenes and Parian cement	51 6	" "
Fine do. do.	59 6	" "
Robinson's Fireproof Cement	51 6	" "
Do. Finishing " (Exclusive of the ordinary charge for sacks.)	56 6	" "
Whiting	30 0	" "

LEAD, &c.

	Per ton, in London. £ s. d.	£ s. d.
LEAD—Sheet, English, 3 lbs. & up.	15 5 0	- - -
Pipe in coils	15 15 0	- - -
Soil Pipe	18 5 0	- - -
ZINC—Sheet—		
Vieille Montagne ton	24 0 0	- - -
Silesian	23 10 0	- - -
COPPER—		
Strong Sheet per lb.	0 1 0½	- - -
Thin "	0 1 2	- - -
Copper nails "	0 1 2	- - -
BRASS—		
Strong Sheet "	0 0 11	- - -
Thin "	0 1 1	- - -
TIN—English Ingots "	0 1 4	- - -
SOLDER—Plumbers' "	0 0 7	- - -
Tinmen's "	0 0 8	- - -
Blowpipe "	0 0 9	- - -

ENGLISH SHEET GLASS IN CRATES.

15 oz. thirds	3d. per ft. delivered.
" " fourths	2¾d. " "
21 oz. thirds	3¾d. " "
" " fourths	3¾d. " "
26 oz. thirds	5d. " "
" " fourths	4¾d. " "
32 oz. thirds	6d. " "
" " fourths	5¾d. " "
Fluted sheet, 15 oz.	3¾d. " "
" " 21 "	4¾d. " "
½ Hartley's Rolled Plate	3d. " "
½ " " "	3½d. " "
¾ " " "	4d. " "

OILS, &c.

	£ s d.
Raw Linseed Oil in pipes per gallon	0 3 0
" " " in barrels "	0 3 1
" " " in drums "	0 3 3
Boiled " " in pipes "	0 3 2
" " " in barrels "	0 3 3
" " " in drums "	0 3 5
Turpentine, in barrels "	0 2 5
" in drums "	0 2 7
Genuine Ground English White Lead per ton	23 10 0
Red Lead, Dry "	24 0 0
Best Linseed Oil Putty per cwt.	0 9 0
Stockholm Tar per barrel	1 10 0

VARNISHES, &c.

	per gallon £ s. d
Fine Elastic Copal Varnish for outside work	0 16 6
Best Elastic Copal Varnish for outside work	1 0 0
Best Elastic Carriage Varnish for outside work	0 16 6
Best Hard Oak Varnish for inside work	0 10 6
Best Extra Hard Church Oak Varnish for inside work	0 10 6
Fine Hard Copal Varnish for inside work	0 16 0
Best Hard Copal Varnish for inside work	1 0 0
Best Hard Carriage Varnish for inside work	0 16 0
Extra Pale Paper Varnish	0 12 0
Best Japan Gold Size	0 10 0
Best Black Japan	0 16 0
Oak and Mahogany Stain	0 9 0
Brunswick Black	0 9 0
Berlin Black	0 15 0
Knotting	0 10 0
Best French and Brush Polish	0 10 0

TO CORRESPONDENTS.

H. K. (Too late; next week.)

NOTE.—The responsibility of signed articles, letters, and papers read at meetings, rests, of course, with the authors.

We cannot undertake to return rejected communications.

Letters or communications (beyond mere news items) which have been duplicated for other journals are NOT DESIRED.

We are compelled to decline pointing out books and giving addresses.

Any commission to a contributor to write an article is given subject to the approval of the article, when written, by the Editor, who retains the right to reject it if unsatisfactory. The receipt by the author of a proof of an article in type does not necessarily imply its acceptance.

All communications regarding literary and artistic matters should be addressed to THE EDITOR; those relating to advertisements and other exclusively business matters should be addressed to THE PUBLISHER, and *not* to the Editor.

TENDERS.

[Communications for insertion under this heading should be addressed to "The Editor," and must reach us *not later than 10 a.m. on Thursdays.* N.B.—We cannot publish tenders unless authenticated either by the architect or the building-owner; and we cannot publish announcements of tenders accepted unless the amount of the tender is given, nor any list in which the lowest tender is under £100, unless in some exceptional cases and for special reasons.]

* Denotes *accepted.* † Denotes *provisionally accepted.*

COLNBROOK (Middlesex).—For the erection of a terrace of cottages in concrete at Poyle Mills, for the Fibrous Manufacturing Company, Limited. Messrs. Clare & Ross, architects, Chelmsford and London:—

Clare Bros.	£1,123	Lane & Son, Colnbrook*	£900
Field & Clare	1,068		

[Part of materials for concrete obtained on site.]

HOVE.—The following have been accepted by the Town Council. Mr. H. H. Scott, Borough Surveyor, Town Hall, Hove:—

Street Masonry and Jobbing Works.

W. Whitman, 46, Sackville-road, Hove, schedule prices.

Supplying and Fitting Ironmongery.

Bird & Co., 11, Great Castle-street, Regent-street, W. 26¼ per cent. off schedule prices.

Supplying Joiners' Ironmongery.

Bird & Co., 11, Great Castle-street, Regent-street, W. 26¼ per cent. off schedule prices.

Gas and Water Pipes and Fittings.

Bird & Co., 11, Great Castle-street, Regent-street, W. 23¼ per cent. off schedule prices.

Paints, Varnishes, and Brushes.

C. Ham, Lewers-terrace, Church-road, Hove. 20 per cent. off schedule prices.

Granite for Road Metalling.

A. & F. Manuelle, 57, Gracechurch-street, London.

Broken (so as to pass through a ring 1½ in. in diameter)	at 11s. 10d. per ton
Broken (so as to pass through a ring ¾ in. in diameter)	" 8s. 3d. "
Spalls	" 8s. 1d. "

Quartzite Stone for Road Metalling.

W. Hudson, Terminus Gates, Queen's-road, Brighton.

Broken (so as to pass through a ring 1½ in. in diameter)	at 11s. 6d. per ton
Broken (so as to pass through a ring ¾ in. in diameter)	" 9s. 8d. "
Spalls	" 9s. 8d. "

Supplying Broken Coombe Rock Flints.

W. Hudson, Terminus Gates, Queen's-road, Brighton.

	Price per cub. yard.
To be delivered at Farm-road depot, or on the roads in any part of the borough east of the Drive	5s. 5d.
To be delivered at Church-road depot, Sackville-road depot, or on the roads in any part of the borough west of the Drive	5s. 2d.
To be allowed to remain at the contractor's depot, and carted thence by the Council's carts as required	3s. 8d.

Supplying Hand Picked Hill Flints.

	Number of yards willing to deliver.	To be delivered at Sackville-road depot. Price per yard. s. d.	To remain at the contractor's depot and carted thence by the Council's own carts as required. Price per yard. s. d.
J. H. Strivens, Applesham, nr. Shoreham, Sussex	600	7 0	—
R. Brown, West Blatchington, Sussex	200	7 0	—
W. Hillman, North-street, Portslade	1,000	7 0	5 6

Hand Picked Hill Flints (Broken).

		Broken hand picked hill flints.
W. Hillman (as above)	1,000	7 9 —

New Street Works, Cisbury-road.

Parsons & Sons, 118, Church-road, Hove ... £382 10 0

New Street Works, Addision-road (part of).

Parsons & Sons, 118, Church-road, Hove ... £309 0 0

Constructing Underground Lavatories, King's Gardens Esplanade and Western Lawns.

Parsons & Sons, 118, Church-road, Hove... £1,949 0 0

CRESSING (Essex).—For the erection of new school buildings, teachers' residence, and preparing and fencing in the site, for the Cressing School Board. Messrs. Clare & Ross, architects, Chelmsford and London.:—

Dupont & Co.	£2,300	E. West	£2,133
Smith & Son	2,225	F. Johnson, Chelmsford*	2,105
J. Rayner	2,200		

KELVEDON (Essex).—For the erection of pair of villas, for Mr. John Fuller. Messrs. Clare & Rose, architects, Chelmsford and London:—

Dupont & Co., Colchester ... £1,315

LERWICK (Shetland).—For the erection of a cottage hospital, for the Trustees of the Gilbert Bain Hospital. Mr. W. A. Baird Laing, architect, 13, George-street, Edinburgh. Quantities by Messrs. A. Hay & Co., 88, George-street, Edinburgh:—

Masonry.—Messrs. Dunbar, Craigellachie*	£930
Joinery.—Messrs. Dunbar, Craigellachie*	550
Slating.—John M. Aitken, Lerwick*	113
Plumbing.—John M. Aitken, Lerwick*	330
Plastering.—Robert McKay, Lerwick*	110
Painting and Glazing.—J. M. Smith, Lerwick*	109

LONDON.—For the erection of a new relief station, Nunhead-lane, Peckham, for the Board of Guardians of the parish of St. Giles, Camberwell. Mr. A. E. Mullins, architect, 16, Church-street, Camberwell Green. Quantities by Mr. W. T. Farthing:—

Tomkins	£5,097 6 6	Tyneman	£3,921 0 0
Wallace & Co.	4,420 0 0	Keys	3,915 0 0
Parsons	4,350 0 0	Smith & Sons	3,893 0 0
Tod & Newman	4,237 0 0	Sharpington	3,769 0 0
Patric & Co.	3,999 0 0	H. L. Holloway	3,737 0 0
Foster Bros.	3,990 0 0	Renshaw	3,659 0 0
Courteney & Fairbrain	3,959 0 0	Gough	3,654 0 0
Marsland & Son	3,935 0 0	Balaam Bros.*	3,550 0 0
Chessum & Sons	3,923 0 0	Richardson	3,519 0 0
		Kent	3,420 0 0

LONDON.—For the erection of stabling in rear of Nos. 78, 80, and 82, Smith-street, Kennington, for Mr. C. Spalding. Mr. A. E. Mullins, architect and surveyor, 16, Church-street, Camberwell:—

Burman & Sons* ... £532

LONDON.—For additions and alterations to printing works, at No. 60, East Dulwich-road, for Mr. W. Russell. Mr. A. E. Mullins, architect and surveyor, 16, Church-street, Camberwell Green:—

W. Smith	£454 5	W. Champion*	£362 15
H. Line	419 0		

LONDON.—For rebuilding 26A, Argyll-street, and alterations at 7 and 8, Little Argyll-street, for Messrs. Dickins & Jones, Limited. Mr. Ernest H. Abbott, architect, 6, Warwick-court, Gray's Inn, W.C. Quantities by Mr. Alfred Johnson, 34, Imperial Buildings, Ludgate Circus, E.C.:—

Mowlem & Co	£5,987	Holland & Hannan	£5,220
Bywaters & Sons	5,290	Hall, Beddall, & Co.	4,994

LONDON.—For alterations at the Queen Victoria, Mape-street, Bethnal Green, for Mr. J. T. Gamble. Mr. Edward Brown, surveyor, 128, Mile End-road:—

E. Lancaster	£285 0	H. Hood*	£239 0
Knight Bros.	247 15		

LONDON.—For the erection of male staff quarters, South Wharf, Rotherhithe, S.E., for the Metropolitan Asylums Board. Messrs. T. W. Aldwinckle & Son, architects, 20, Denman-street, London Bridge, S.E. Quantities by Mr. W. T. Farthing, 46, Strand, W.C.:—

White	£7,450	Balaam Bros.	£6,556
Godson & Son	7,390	B. E. Nightingale	6,475
Cole & Lightfoot	6,897	Irwin	6,452
Sharpington	6,890	F. & H. F. Higgs	6,331
Thomas & Edge	6,850	Appleby	6,032
Pattison	6,784	W. Lawrence	5,949
Wallis	6,732	Veal & Carter*	5,620
Holloway	6,560		

LONDON.—For decorative and sanitary repairs and electric light installation, 45, Earl's Court-square, South Kensington. Messrs. Jno. W. Morley & Co., surveyors, 185, Earl's Court-road, S.W.:—

Holdstock & Mould	£327 10	James Whitaker*	£274 0
Harvey & Peake	291 10	Cooper, Palmer, & Taylor	253 0
Smith & Son	287 0		

LONDON.—For decorative and sanitary repairs and electric light installation, 4, Nevern-square, South Kensington Messrs. Jno. W. Morley & Co., surveyors, 185, Earl's Court-road, S.W.:—

J. Whitaker	£212 18 0	H. Oldrey*	£188 19 6

PURLEY.—For new carpenter's shop and bath accommodation, sanitary and heating apparatus, decorative repairs, and other works, at Reedham Orphanage, Purley, Surrey, for the Board of Managers. Mr. Alfred Roberts, architect, 18, Nelson-street, Greenwich, S.E.:—

F. & H. F. Higgs	£2,761 0	W. Mills, Westcombe Park, S.E.*	£2,452 10
E. J. Saunders	2,742 0		
Bulled & Co.	2,674 0		

[*See also next page.*

LONDON SCHOOL BOARD TENDERS.

AT the last meeting of the London School Board, the Works Committee submitted the following lists of tenders :—

Running contracts for the supply of various articles of furniture, &c. :—

—	E.C.S. Boards (large).	E.C.S. Boards (small).	Interior Notice Boards.	Managers' Boards.	Play-ground Notice Boards.	Glazed Boards for E.C.S. Schools.	Honour Boards for Graded Schools.	Honour Boards for Pupil Teachers' School.
	per doz.	per doz.	each.	per doz.	each.	each.	each.	each.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Lonnie & Co.	10 10 0	9 15 0	1 0 0	5 0 0	0 17 6	1 9 6	2 15 0	2 12 0
General Builders, Limited ..	9 0 0	6 0 0	0 12 6	2 10 0	0 10 0	—	1 15 0*	1 13 0
Bruce, Croom & Co.	9 3 0	7 10 0	0 11 9	4 10 0	0 11 3	—	1 15 9	1 13 0
R. H. Galbraith	6 18 0	4 19 0	0 9 9	2 10 0	0 8 3	1 5 6*	1 17 6	1 12 6*
W. H. Lascelles & Co.	7 10 0	4 10 0	0 6 9	2 2 0	0 9 3	1 12 6	2 6 0	2 3 0
H. Bonneau	5 17 0*	4 10 0*	0 6 8*	1 19 0*	0 7 6*	1 8 0	1 18 6	1 15 9

—	Tray Cup-boards.	Easels, No. 1.	Easels, No. 2.	Easels, No. 3, with T slides.	Easels, No. 4, with T slides.	Art Easels.	Desks for Cookery Centres, with back rail.	Desks for Cookery Centres, without back rail.
	each.	each.	each.	each.	each.	each.	per doz.	per doz.
	£. s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
G. M. Hammer & Co., Ltd..	*6 18 0	0 6 10	*0 8 6	*0 9 6	*0 10 6	0 5 3	15 18 0	14 0 0
H. Bonneau	7 0 0	0 8 0	0 10 0	0 11 3	0 12 11	*0 3 6	—	—
London School Furnishing Company	7 17 6	0 10 0	0 10 6	0 11 0	0 15 0	0 5 3	*15 0 0	13 16 0
Bruce, Croom, & Co.	10 18 6	—	—	—	—	—	—	—
T. Cruwys	10 0 0	0 11 0	0 11 6	0 12 0	0 12 6	0 7 6	—	—
Wake & Dean, Ltd.	—	0 7 9	0 9 0	0 9 6	0 11 0	0 4 0	—	—
Educational Supply Association, Ltd.	—	0 9 9	0 11 3	0 14 6	0 17 0	0 3 10	15 8 0	*13 16 0

	Gully Ladles (large) each.	Gully Ladles (small) each.
	s. d.	s. d.
H. A. Leighton	2 0	1 11
Pearson, Limited	0 10½	0 8½
Bird & Co.	0 9	0 7½
Trueman & Co.	*0 8½	*0 5½

Gas Coppers for Schoolkeepers.

Brightside Foundry and Engineering Co., Ltd.	£2 8 0
Davis Gas Stove Co. Ltd.	†1 8 6
Pearson, Limited	1 3 6
Pryke & Palmer	*0 17 7

† This price is for a supply of twenty-four coppers.

The committee recommend the accepance of the tender which is marked with an asterisk (*) in each case.

ST. JOHN'S SCHOOL, HALLEY-STREET, LIMEHOUSE.—For repairing furniture :—

J. E. Tuckett	£30 0 0	Wake & Dean, Limited	£18 7 0
E. Spencer & Co.	21 10 0	Educational Supply Association, Limited	14 6 6
H. Bouneau	21 4 6		
R. H. Galbraith	21 2 6		

The Committee recommend the acceptance of the lowest tender.

C. B. N. SNEWIN & SONS, Ld.
MAHOGANY, WAINSCOT, WALNUT,
TEAK, VENEER, and TIMBER MERCHANT,
Nos. 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, & 17, BACK HILL, HATTON GARDEN, and 29, 30, & 31, RAY STREET, FARRINGDON ROAD, E.C.
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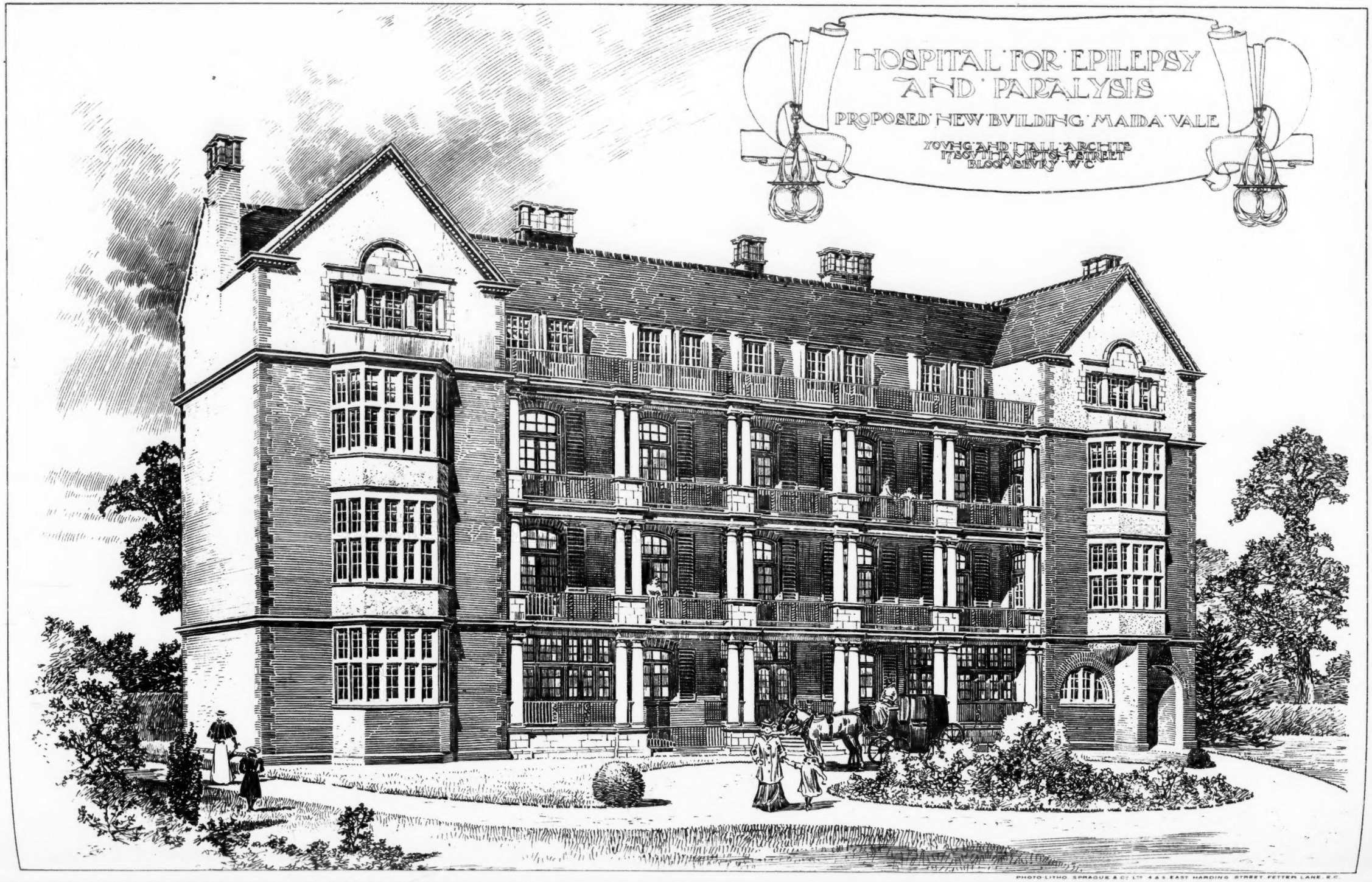

PHOTO-LITHO SPRAGUE & Co LTD 4 & 5 EAST HARDING STREET FETTER LANE E.C.

THE BUILDER, JUNE 22, 1901.

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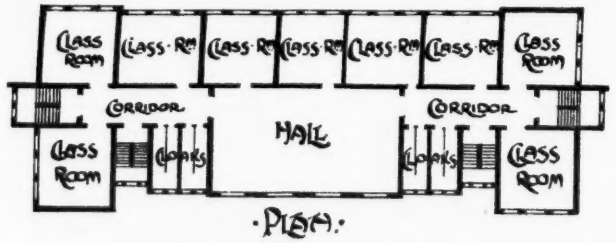


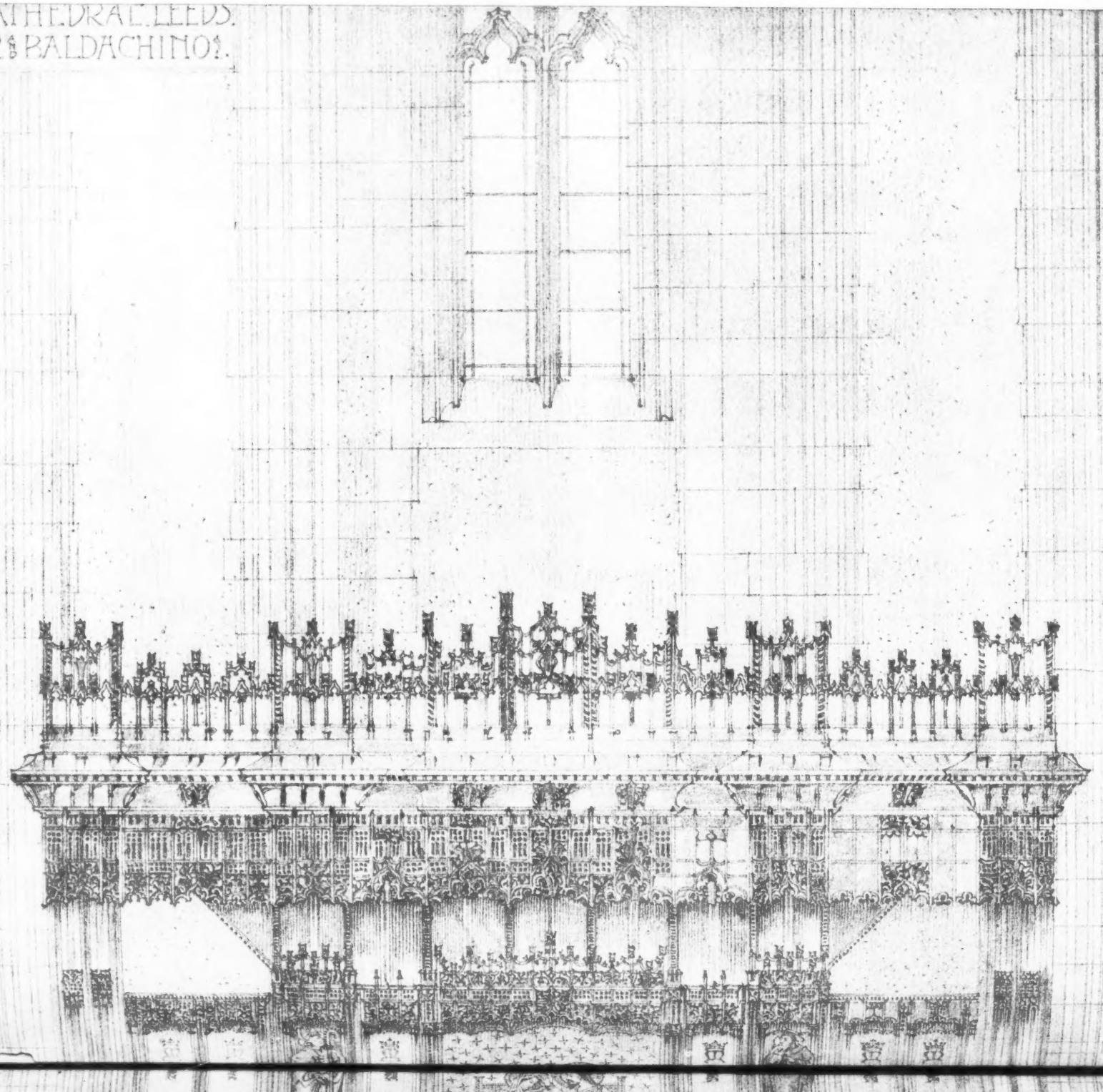
HIGHER GRADE SCHOOL CASSLAND ROAD HACKNEY FOR THE LONDON SCHOOL BOARD

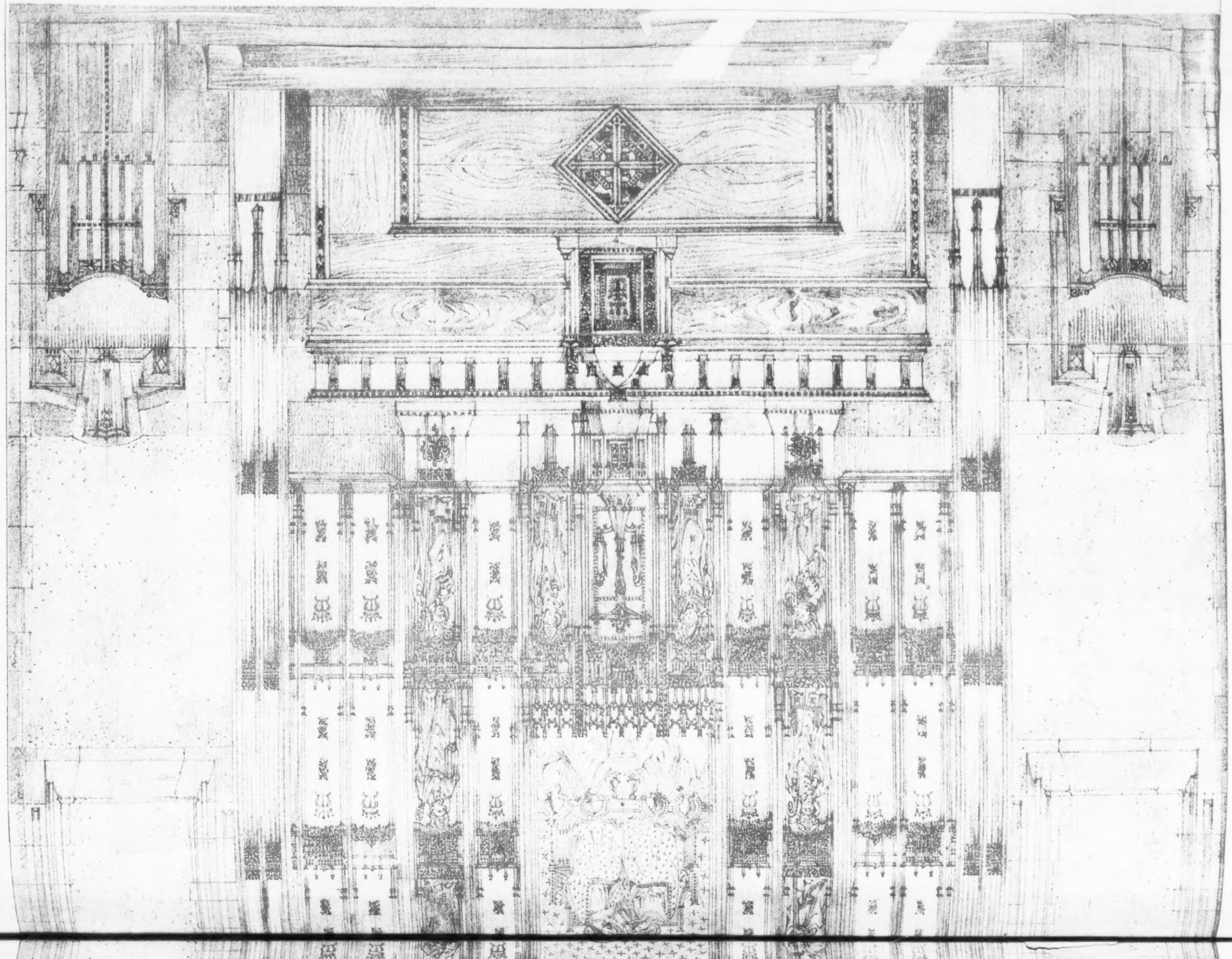
T. J. BAILEY, F.R.I.B.A. ARCHT.

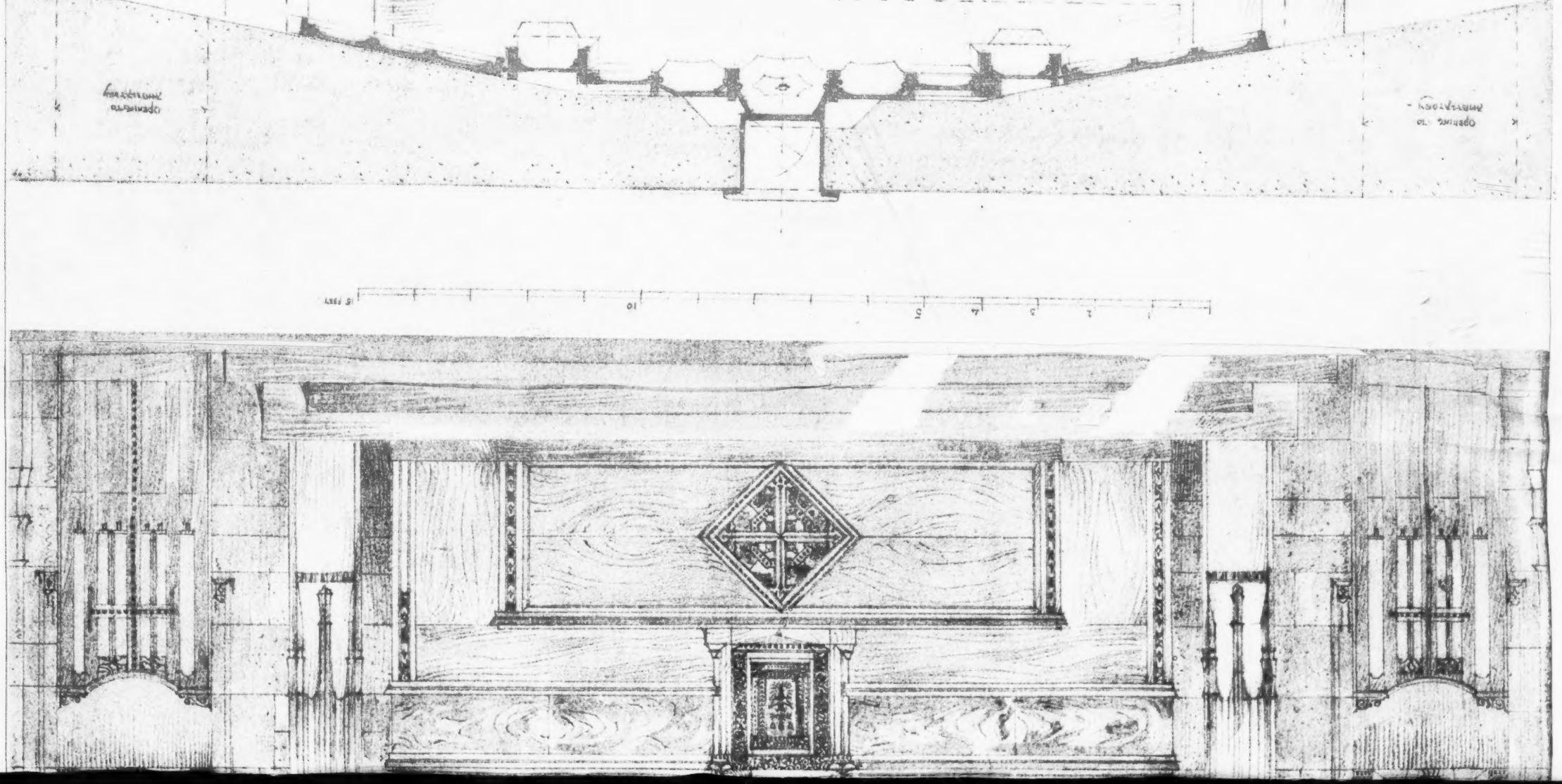
1901

PHOTO-LITHO. SPRAGUE & Co LTD 4 & 5, EAST HARDING STREET, FETTER LANE, E.C.

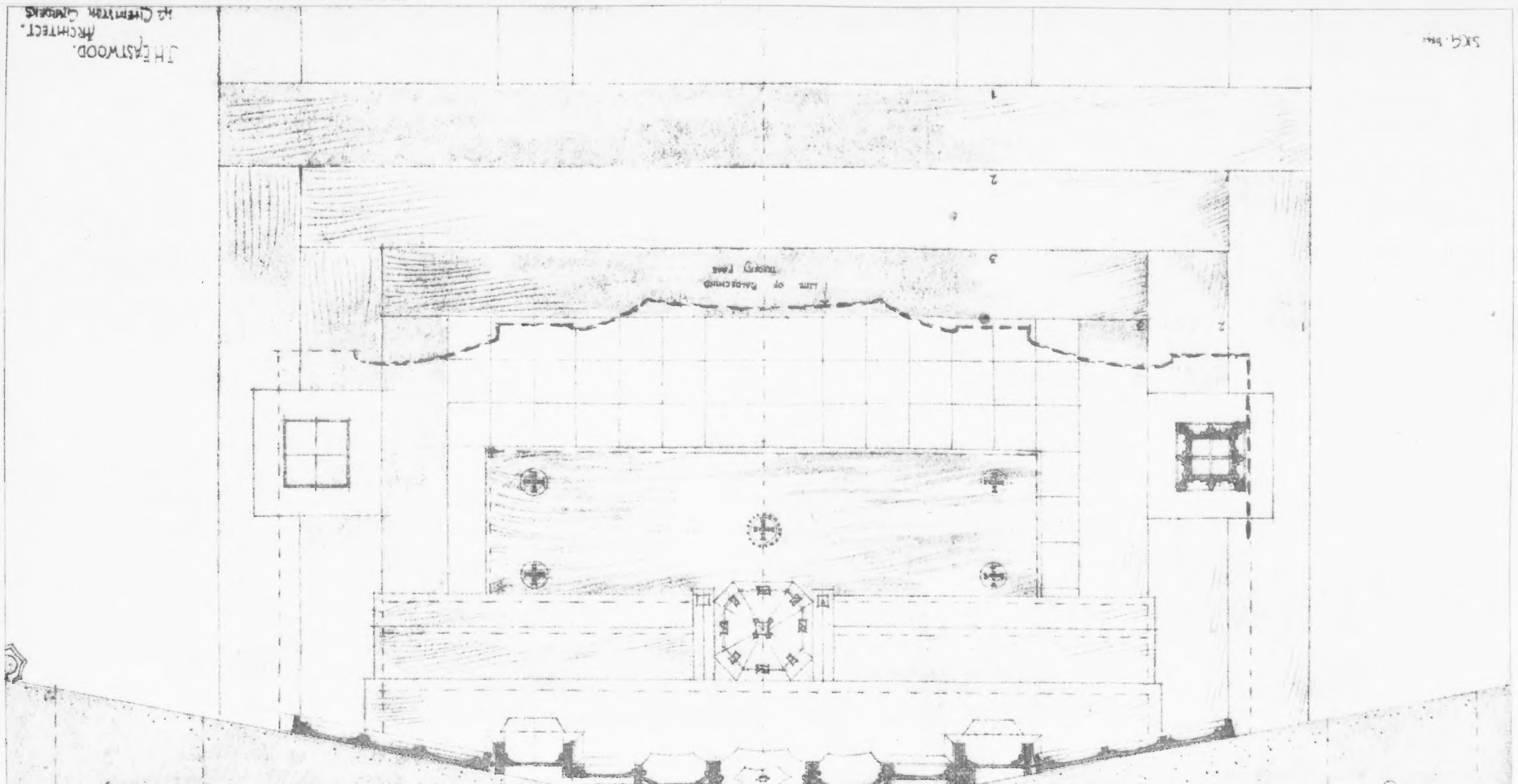
ST ANNE'S CATHEDRAL LEEDS.
HIGH ALTAR & BALDACHINO.





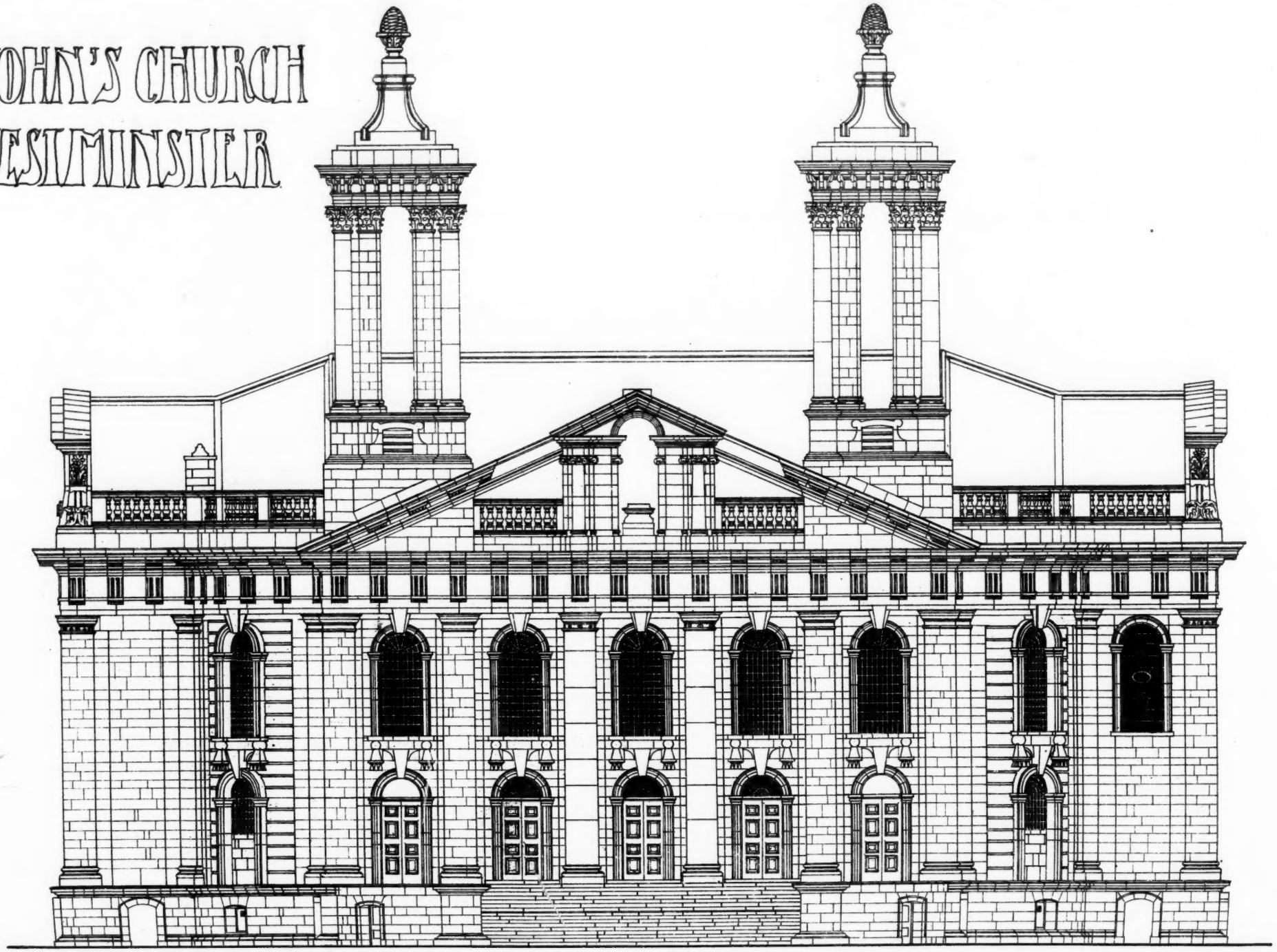


INK-PHOTO, SPRAGUE & C° LTD ♦ 5, EAST HARDING STREET, FETTER LANE, E.C.



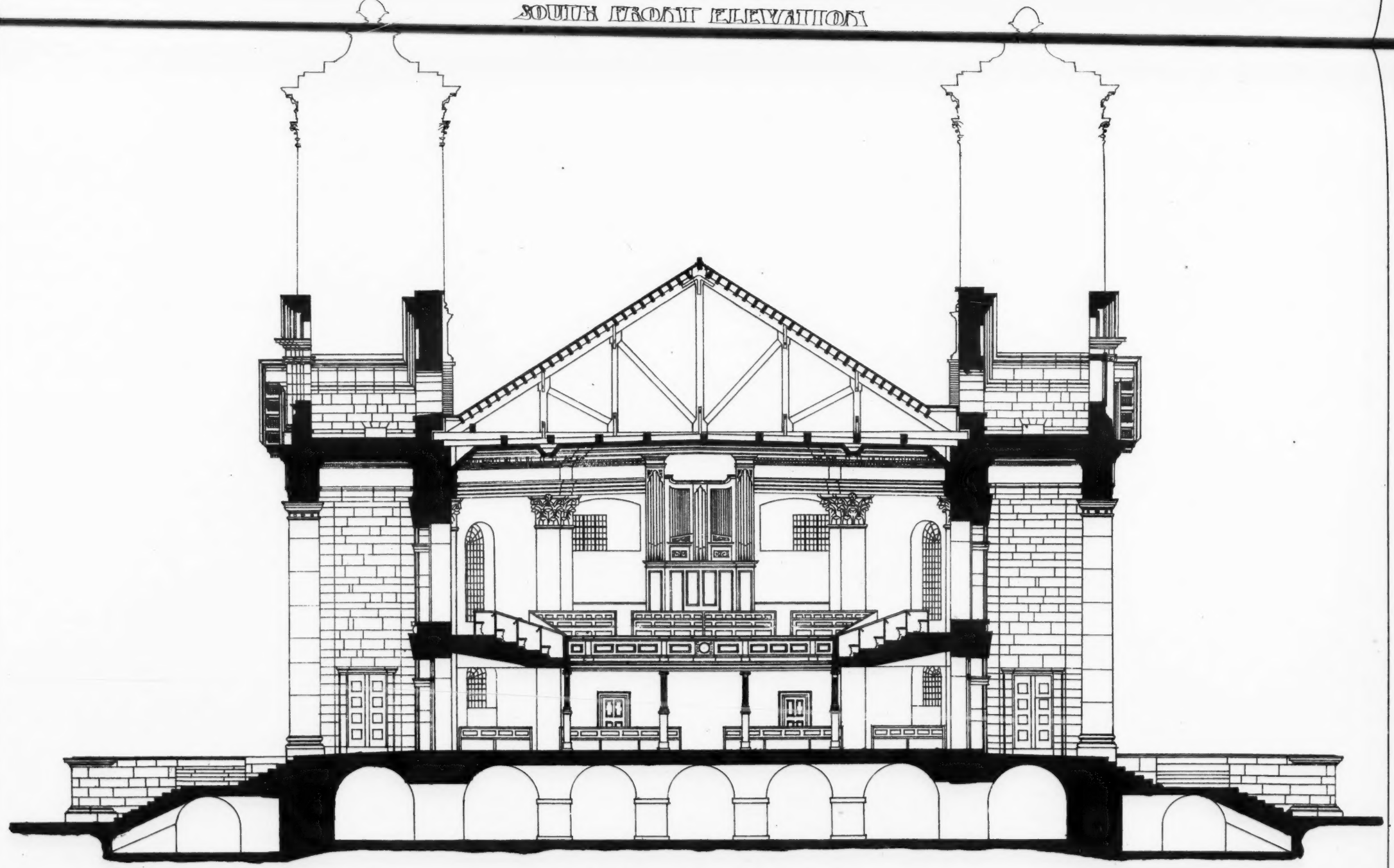
J H EASTWOOD.
ARCHITECT.
42 Chenies Street.

St JOHN'S CHURCH WESTMINSTER



SOUTH FRONT ELEVATION.

SOUTH FRONT ELEVATION



TRANSVERSE SECTION

·MEASURED·&·DRAWN·BY·
·A.WYATT·PAPWORTH·

10 5 0 10 20 30 40 50 60 70 80 90 FEET.

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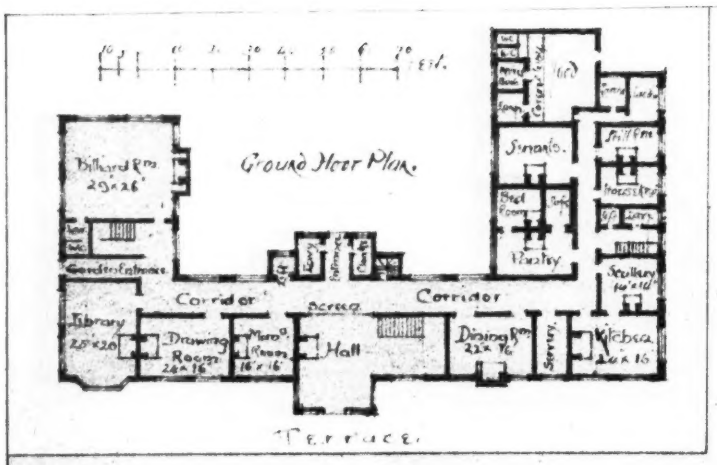
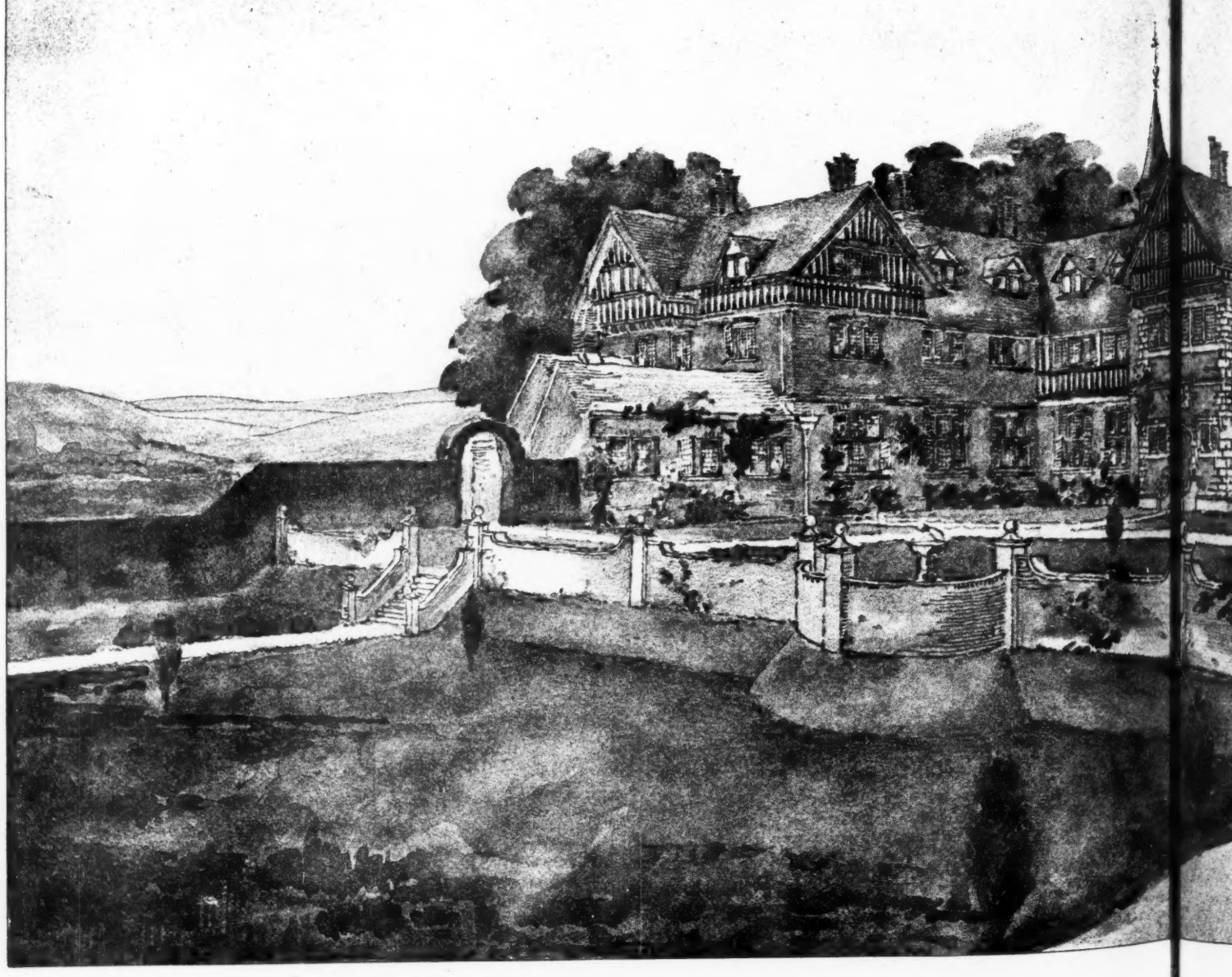
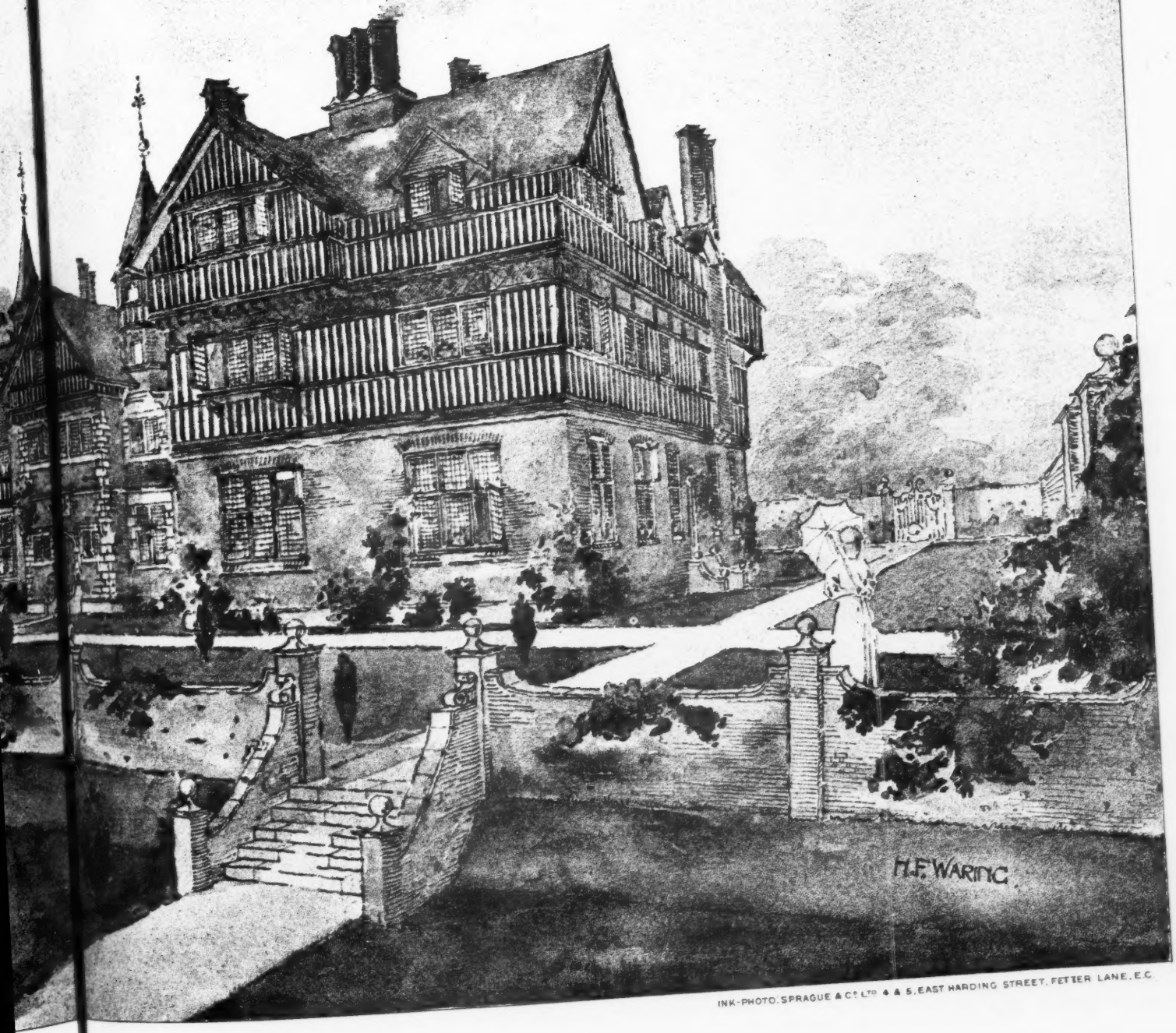

Ground Floor Plan.
Billiard Rm 29'x26'
Corridor
Corridor
Library 25'x20'
Drawing Room 24'x16'
Morn. Room 16'x16'
Hall
Dining Rm 22'x16'
Servery
Kitchen 20'x16'
Scullery 10'x10'
Pantry
Housekpr.
Steward's
Terrace



'The Towers' Devonshire

Chas. R. Dibdin } Joint
H.F. Waring } Architects



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